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Proceedings of
the 34th
International
Congress on
Alcoholism and
Drug Dependence

Compte Rendu
du 34^e congrès
International sur
l'Alcoolisme et
les Toxicomanies

August 4th to
10th, 1985
Calgary, Alberta
Canada

du 4 au 10
Août, 1985
Calgary, Alberta
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Problèmes de l'Alcool
et des Toxicomanies
Organisé par la
Commission Albertaine
contre l'Alcool et
les Toxicomanies

ABSTRACTS

RÉSUMÉS

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**ALCOHOL, DRUGS AND TOBACCO:
AN INTERNATIONAL PERSPECTIVE-
PAST, PRESENT AND FUTURE**

Proceedings of the
34th International Congress on
Alcoholism and Drug Dependence
August 4-10, 1985
Calgary, Alberta, Canada

Volume 1

Abstracts

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Alberta Alcohol and Drug Abuse Commission

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LE PASSÉ, LE PRÉSENT ET L'AVENIR

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Volume 1

Résumés

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La Commission Albertaine contre l'Alcool et les
Toxicomanies

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FOREWORD

This volume contains abstracts of papers to be presented in the formal program sessions of the Congress. Only those abstracts received prior to printing are included. All abstracts are printed in the language in which they were received.

The abstracts are numbered and arranged alphabetically by title. Two indexes are available: an index of the first author of each abstract and a topical index which classifies each abstract in one of twenty-six general subject/topic categories.

Where necessary, for purposes of clarity, brevity and consistency, some editorial changes have been made.

The opinions expressed and any conclusions drawn are those of the participants of the Congress and are not to be understood as necessarily having the endorsement of or representing viewpoints of the International Council on Alcohol and Addictions, the Alberta Alcohol and Drug Abuse Commission, or the editors.

AVANT-PROPOS

Ce volume contient des résumés de communications qui seront présentés aux séances officielles du programme du Congrès. Seuls les résumés, reçus avant la date d'imprimerie y sont inclus. Tous les résumés sont imprimés dans la langue dans laquelle nous les avons reçus.

Les résumés sont numérotés et les titres classés par ordre alphabétique. Deux index sont disponibles: un index du premier auteur de chaque résumé et un index des thèmes où chaque résumé est classé selon l'une des vingt-six catégories générales sujet/thème.

Pour les besoins de clarté, de brièveté et de cohérence, quelques changements ont été faits par la rédaction, là où cela s'est avéré nécessaire.

Les opinions exprimées et les conclusions qui en ont été tirées sont celles des participants au Congrès et ne sauraient être interprétées comme ayant nécessairement l'approbation ou comme devant représenter le point de vue du Conseil International sur les Problèmes de l'Alcoolisme et des Toxicomanies (CIPAT), de la Commission Albertaine contre l'Alcool et les Toxicomanies (CAAT) ou des éditeurs.



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AADAC'S CLEVER CLASSMATES: A CO-ORDINATED APPROACH TO DRUG EDUCATION

R. Hale-Matthews, Alberta Alcohol and Drug Abuse Commission, Grande Prairie, Alberta, Canada.

Clever Classmates is a community based program for adolescent students, co-ordinated through AADAC rural offices and implemented through the school system. Parents and community groups provide support such as transportation and travel expenses, lunches and prizes to the students. Clever Classmates is a learning program based on a quiz competition format. With the approval of the principals and teachers, interested groups of students form teams of seven members. The teams are given study packages from AADAC, and after some preparation time, competitions are held in the classrooms or auditoriums. Teams compete against each other for the correct answers to drug-related questions.

In 1984 over 350 students from thirty-seven schools and over a hundred volunteers from community groups participated in the program. An extensive evaluation of the program was carried out by the AADAC Evaluations Division. The results indicated that:

- Team members knowledge of drugs and alcohol increased.
- Teachers thought the program was useful in a) increasing self-esteem, b) clarifying values, and c) encouraging school spirit.
- There was substantial increase in media coverage of AADAC activities.

- There was a substantial commitment of volunteers' time as well as contributions of money, goods and services.

002

ABOUT THE MECHANISM OF ACTION OF METAPRAMINE INDUCED REDUCTION OF VOLUNTARY INTAKE OF ETHANOL BY RATS

F. Boismare, M. Daoust, J.P. L'Huintre, N. Moore, C. Saligaut & P. Chrétien, Laboratoire de Pharmacologie, Faculté de Médecine de Rouen, St Etienne du Rouvray, France.

Many neurotransmitters (dopamine but mainly noradrenaline and serotonin) have been considered as the biochemical marker influencing the voluntary intake of ethanol (VIE). For many authors the major role is attributed to serotonin while Rockman et al. discuss the possibility of an indirect role of this amine on the metabolism of brain norepinephrine.

We have shown that a putative GABA agonist (acetyl bis homotaurinate [Ca AOTA]*) and an antidepressant acting mainly on the noradrenaline uptake (metapramine)** were equipotent in reducing VIE in rats. Thus the question arises of a possible interaction between noradrenaline and GABA. Responses to this question were reported by two experiments.

After treatment for 14 days with 15mg kg⁻¹ day⁻¹ of metapramine, the rats are beheaded and the kinetics of capture of GABA by striatal synaptosomes is shown to be inhibited. The same treatment does not modify the striatal uptake of serotonin.

These results agree with the hypothesis of an action of metapramine on GABA or noradrenaline receptors.

On the other hand we have treated the rats for 14 days with Ca AOTA 200mg kg-1 day-1 and we have shown that this treatment does not interfere with the uptake of serotonin by striatal synaptosomes.

These data show at evidence that serotonin is not involved in the mechanism of action of Ca AOTA and that metapramine can act by means of noradrenaline and/or GABAergic mechanism.

The effect of administration of Ca AOTA on noradrenaline uptake by striatal synaptosomes must permit to answer this alternative.

* Meram Patent.

** Specia Laboratories.

003

L'ACTIVITE LUDIQUE: NOUVELLE STRATEGIE DE PREVENTION CHEZ LES JEUNES

M. Galarneau, J.L. Bonnardeaux, Faculté de l'éducation permanente, Université de Montréal, Montréal, Canada.

Les programmes de prévention de l'abus de l'alcool chez les jeunes 12-15 ans, se sont avérés fort peu efficaces, lorsqu'ils reposaient sur le dogme selon lequel l'information suffit à influencer le comportement des jeunes. Une approche multifactorielle qui associe un ensemble d'interventions sur le sujet dans différents milieux éducatifs, est porteuse de

succès, pour modifier les attitudes des jeunes vis-à-vis des drogues. Dans ce projet, nous avons dû nous assurer la collaboration des individus gravitant dans le milieu éducatif des enfants: parents, professeurs, éducateurs, directeurs d'écoles. Les parents et les professeurs, étant en heures-contact les plus présents auprès des jeunes, il est capital de s'assurer qu'ils seront les porteurs du bon message et qu'ils donneront l'exemple. En effet le jeune mime souvent son comportement sur celui de son entourage.

Pour déclencher la réflexion sur différents thèmes touchant la toxicomanie, l'utilisation du jeu nous a paru efficace, parce qu'il permet au jeune de prendre conscience des attitudes des pairs et des choix qu'ils seront amenés à faire. Nous avons développé un jeu pour permettre aux enfants de comprendre l'importance de la pression sociale sur les choix. Il consiste à permettre à quatre jeunes d'un groupe de cinq de manger des cacahuètes et d'essayer d'amener le récalcitrant qui ne doit pas en manger, à en consommer. Autour de ce jeu, on peut faire comprendre aux joueurs, parents, professeurs, jeunes, l'importance de la prise de décision individuelle face à la collectivité. L'utilisation de cet outil, simple, s'est avérée fort utile. La dimension ludique de la pression sociale sur le choix des individus et leurs styles de vie, permet aux participants de réaliser les opérations élémentaires de l'apprentissage: expérimentation; réflexion; conceptualisation; expérimentation concrète.

L'expérience nous a prouvé que ces formes d'implications dynamiques dans le processus d'épanouissement de la santé se relèvent très efficaces.

ACUPUNCTURE TREATMENT FOR CIGARETTE SMOKING

M. Smith, et al., Division of Substance Abuse, Lincoln Hospital, Bronx, New York, U.S.A.

Acupuncture is a reliable method of reducing the quantity of cigarette smoking without withdrawal symptoms. In a population of two pack a day smokers who do not have other major disabilities, more than 50% experience a dramatic reduction in use and tolerance for cigarettes.

Typically members of the success group have a sudden aversion to smoking on a physical level without any cognitive or emotional change. Their use of cigarettes drops to 0-6 per day within 2 days. The patient is often puzzled by the rapid, effortless effect. Counselling and motivated techniques are most useful after the acupuncture has been successful so that the client can begin his or her life-style change with a "free boost". Continuing acupuncture will augment the process; but if the client does not remain totally abstinent, the effectiveness of the acupuncture aversion will diminish. Clients who remain abstinent often stop smoking permanently with 1-2 acupuncture treatments.

Primarily ear acupuncture (with press needles) is used, although traditional acupuncture diagnosis is often very helpful. Demonstration treatments for conference attendees will be available.

ACUPUNCTURE TREATMENT FOR DETOXIFICATION AND PREVENTION IN ALCOHOLISM AND DRUG ABUSE PATIENTS

M. Smith, B. Bihari, P. Culliton, et al., Division of Substance Abuse, Lincoln Hospital, Bronx, New York, U.S.A.

More than 200 alcoholism and drug abuse patients are treated daily in our inner city walk-in clinic. Other alcoholism patients receive acupuncture in Kings County Hospital (N.Y.) and Minnesota. Clients detoxifying from methadone maintenance are also treated in Brooklyn and New Mexico.

Clients of all types report 90% relief of acute withdrawal symptoms after the first acupuncture treatment. Agitated clients usually fall asleep while the needles are still in place. Ninety percent of street walk-in clients return for next day acupuncture treatment with no extra incentive. A majority of clients report a substantial reduction of craving with frequent acupuncture. This effect is particularly striking in chronic, previously "untreatable" alcoholics. When acupuncture treatment is combined with sobriety-oriented counselling (i.e., breathalyzer contract), more than half of this population become and remain totally sober even in the first week of treatment. This protocol is a useful alternative to in-patient detoxification. Daily acupuncture is used in the beginning. Later treatments are made available on demand to relieve stress and combat tendencies to relapse. The out-patient counsellor can begin a support program from the first day of intake confident of daily attendance and a relative lack of disruption of the clients' employment and family responsibilities.

Mandated clients are more cooperative in this type of program.

Results have been equally promising with abusers of heroin, cocaine, PCP, methadone and sedatives; but we have developed statistical data primarily with the alcoholic population.

We use primarily ear acupuncture (without electrical stimulation) so that many clients can be treated simultaneously in a lounge setting. We will provide demonstration acupuncture treatments for interested members of the audience.

006

ADDICTIONS: SERVICES AND KNOWLEDGE (A.S.K.) PROGRAM - PEER COUNSELLING USED IN COMBATING DRUG ABUSE

S. Lane, Saskatchewan Alcoholism Commission, Saskatoon, Saskatchewan, Canada.

Peer counselling networks are proving to be effective in helping teens cope with alcohol and drug problems. Because teenagers rely on their peers for advice and help, the "peers helping peers" model is a practical means of reaching troubled teens.

In 1979, the International Year of the Child, the Saskatchewan Alcoholism Commission began a student training program. The "Addictions: Services and Knowledge" (A.S.K.) Program is popular with both students and educators, and has expanded to eleven high schools and 100 trainees per year.

The Commission, in co-operation with school and student representatives, selects Grade 10 and 11 students on the basis of their interest and abilities. In groups of 14, A.S.K. students take five days of intensive training at the Calder Rehabilitation Centre in Saskatoon.

The students learn basic alcohol and drug facts and visit various treatment facilities. They practice giving presentations and role playing. Participants learn basic counselling techniques in order to become better listeners and more adept at helping others make decisions.

After returning to their respective schools, the A.S.K. graduates provide a valuable service by giving factual information to fellow students and helping others with individual problems through appropriate referrals.

The A.S.K. program does not intend to train students as professional counsellors, referral agents or addictions experts. The A.S.K. students augment the already strained resources of counsellors and educators and provide a bridge between professional services and teenagers.

ADULT CHILDREN OF ALCOHOLICS IN BERMUDA: A COMPARISON OF CHARACTERISTICS WITHIN THE GENERAL POPULATION

V. Mosher & N. Anderson, Alcoholism Services, King Edward Memorial Hospital, Paget, Bermuda.

Bermuda has experienced an "explosion" of interest in the characteristics of Adult Children of Alcoholics. Special groups have formed, lectures and workshops have been held and a desire for additional knowledge has become prevalent. Because of this recent attention on "ACOA" phenomenon, it has become desirable to validate some of the beliefs attributed to this special population. By comparing characteristics of the ACOA population with non-ACOA subjects, specific aspects can be addressed.

Nearly 400 Bermuda residents were randomly approached to complete a short questionnaire comprised of 15 forced-choice questions selected from the Personal Orientation Inventory by E. Shostrom measuring locus of control, sensitivity to one's own needs, acceptance of aggression and capacity for warm, interpersonal relationships. Furthermore, subjects were asked about age, gender, birth order, person(s) responsible for their "upbringing", problem drinking by "parents" and their own drinking behaviour. Of the sample, approximately 25% were Adult Children of Alcoholics. There seemed to be no significant difference on any of the 15 forced-choice questions; however, it looks likely that patterns exist when examined by a multi-factored analysis. Results of this study are discussed and directions for additional research are highlighted.

ALCOHOL AND COUNTRY MUSIC: THE VALUES AND ATTITUDES OF THE AUDIENCE OF A FORM OF POPULAR CULTURE

E.G. Jones & M. Hoke, Alberta Alcohol and Drug Abuse Commission, Edson, Alberta, Canada.

Cultural values and attitudes are manifested in the various forms of popular cultural expression prevalent in any society. Popular music is a good example of such popular cultural expression, and one which lends itself to sociocultural examination. Country (or country-western) is a discrete form of such popular music which is characteristic of North America, and can be said to be an expression of a North American subculture.

This presentation will discuss the findings of a study done in Alberta in January through March, 1985, which examined the relationship between the values and attitudes regarding the consumption of alcoholic beverages expressed in contemporary, popular country music and the values and attitudes towards drinking which are held by those people who describe themselves as fans of this music style. The findings lead to a clearer understanding of the relationship between popular cultural expressions and the values and attitudes of sociocultural groups. This new information broadens our understanding of the role of drinking behaviour in a segment of contemporary North American society.

ALCOHOL AND DRUG ABUSE PREVENTION: COOPERATION BETWEEN THE PUBLIC AND PRIVATE SECTORS

G.H. Ryan, Sr., Springfield, Illinois, U.S.A.

The growth of prevention-oriented activities has seen more involvement in both the private and public sectors. There is a need to coordinate those activities to ensure delivery of services which are both effective and cost-efficient.

The author describes his involvement as an elected official in prevention activities on both the state and national levels. Those activities have included promoting state prevention programs conducted by private groups, as well as serving as chairman of a national Substance Abuse Prevention Task Force; working with professional athletic teams in Illinois to establish a program promoting community based prevention activities; compiling both state and national directories of treatment and prevention services.

The author also discusses his role as a liaison between volunteer and professional groups in the prevention field in Illinois.

ALCOHOL AND DRUG AWARENESS PROGRAM - GIRL GUIDES OF CANADA, MANITOBA COUNCIL

E.J. Waters, Alcoholism Foundation of Manitoba, Winnipeg, Manitoba, Canada.

The Alcohol and Drug awareness program developed for the Girl Guides of Canada by the Alcoholism Foundation of Manitoba is designed specifically for use by the Girl Guides organization. The ten modules that comprise the package are integrated with their own Outdoor Emblem Challenge Handbook and a special achievement emblem is presented upon successful completion of a particular exercise or module.

The application of a Community Mobilization strategy was the key factor in realizing the goal of this particular initiative. The principal players involved in the process were the Alcoholism Foundation of Manitoba, the Girl Guides of Canada, Manitoba Council and the Kiwanis Club of Gimli and District. This blend of public and private sector involvement serves as an example of a process which utilizes available resources in meeting a need expressed by a local chapter of an International Youth Group.

Since the first printing, several thousand copies have been distributed throughout the province of Manitoba. The Girl Guide Council is actively involved in the promotion of the material within their membership as is the Kiwanis organization. As demand for the program increased, other Kiwanis Clubs in the greater Winnipeg area became involved in the funding for the project.

Essentially, two international organizations and a provincial government agency have combined their efforts to produce and promote a youth program which provides on-going information in a consistent manner on alcohol and drugs where no program existed previously.

Copies of the program are available on a limited basis for those persons interested in the concept and to further promote the material.

011

ALCOHOL AND DRUG PREVALENCE IN OCCUPATIONAL FATALITIES IN ALBERTA 1979-1983

B.C. Alleyne, G. Jamieson, J. Kalnas & R.R. Orford,
Medical Services Branch, Alberta Workers' Health,
Safety and Compensation, Edmonton, Alberta, Canada.

The relationship between alcohol, drug abuse and industrial accidents is an area of interest to all concerned with occupational health and safety. The belief that industrial accident rates are high amongst alcohol and drug users is widespread, but lacks supporting evidence.

Using the data from autopsies and toxicological investigations of industrial accident victims, we have initiated an ongoing review to determine the frequency with which alcohol and drugs are associated with fatal accidents. Information is collected on occupation, age, sex, type of accident, drugs detected and alcohol levels. The monitoring system will be discussed and the results based on 339 cases collected during 1979-1983 will be presented.

ALCOHOL AND DRUG USE AMONG MONTREAL HIGH SCHOOL STUDENTS.

A.M. Ghadirian, M.E. Subak, V. Kovess, G. Grégoire & R. Prince, Douglas Hospital Centre, Montreal, Quebec, Canada.

In this survey, 206 high school students participated and responded anonymously to a structured questionnaire. The sample consisted of students from a middle class background of both sexes with a mean age of 16.3 years. The results revealed that 18.5% came from homes where parents were separated or divorced. This high percentage of broken homes was compounded with a high prevalence of alcoholism (mainly in fathers) and consumption of "nerve pills" (mostly in mothers) (18.5% and 23% respectively). Almost 89% indicated that they had used alcoholic beverages at some point in their life. The peak of first time experience was 13-14 years of age in 37% of our sample. About 38% of students admitted they used alcohol in the preceding 1-5 days. Another 6.3% of them said that they had more than 10 drinks per week. Over half of the students who used drugs had previously taken alcohol. Fifty-four percent indicated that they used cannabis, 14% used hallucinogenic drugs and 12% used stimulants at some time during their life. Curiosity and pleasure were the most frequently cited reasons for drug use.

In our study the influence of parental loss is reflected on the choice of drug abuse: in families where there was a high percentage of deceased mothers, adolescents reported to make use of prescribed tranquilizers, whereas in the families where they

suffered loss of a father, the adolescents tended to use more amphetamines. The authors will discuss some aspects of psychosocial implications of drug use in the life of Montreal high school students.

013

ALCOHOL AND FAMILY VIOLENCE

S.S. Covington, La Jolla, California, U.S.A.

Alcoholism and domestic violence are usually addressed as separate issues. Yet, social service providers continue to report a clear consistent association between the incidence of alcohol use and all kinds of family violence. Both of these problems which affect the entire family are, at the very least, dangerous to their "victims" - sometimes fatal.

This presentation will address both problems. While research is scarce and sometimes appears contradictory, a synthesis of the available information on alcoholism and violence in the United States will be given. The presenter's recent research on the physical, sexual and emotional abuse experienced by seventy American women (both alcoholics and nonalcoholics) will be introduced to underscore this correlation between alcohol use and domestic violence.

Gender differences between the roles of "victims" and "perpetrators" of violence, for both children and adults, will be explored, and the distinctions found will be analyzed.

The taboo of incest will be addressed, with some cross-cultural data offered on the topic. Symptomatology of the adult incest survivor and implications for treatment will conclude this section.

014

ALCOHOL CONSUMPTION AND MORBIDITY IN THE CANADA HEALTH SURVEY

A. Richman & R.A. Warren, Dalhousie University, Halifax, Nova Scotia, Canada.

This study examined the interrelations between alcohol use and health status as reported by 17,249 respondents. Self-reported morbidity rates (bed-days, activity-loss, doctor-visits) were computed for various categories of drinkers, defined in terms of quantity and frequency of intake. These were compared with the level of morbidity expected on the basis of each group's demographic attributes. There was no evidence of increases in morbidity with increased frequency or quantity of alcohol intake; in fact, increasing frequencies of consumption were generally associated with reduced morbidity. Similarly, increasing quantities of intake were associated with lower morbidity for intake levels below 35 drinks per week. Above this intake level, morbidity rates increased sharply. Persons who had ceased to drink, permanently or temporarily, consistently had health problem rates significantly higher than expected.

Inter-beverage differences in morbidity rates were also computed for consumers of beer, wine, liquor and for those with no specific beverage preference. Dose-

response relationships were calculated, relating frequency and quantity of use for each beverage group to a standardized morbidity rate (based on each groups demographic attributes). In general, the results supported the importance of inter-beverage differences. Both frequency and quantity dimensions of the dose-response relationship varied markedly as a function of the type of beverage consumed. Beer drinkers, in particular, varied from other consumers; they had significantly lower rates of morbidity than expected. Increases in frequency of beer drinking were associated with reductions in morbidity, but mildly deleterious effects were associated with excessive consumption quantities.

015

ALCOHOL CONSUMPTION OF WORKERS IN A FLORENCE FACTORY

A. Morettini (1), A. Allamani (1), S. Innocenti (1), C. Lomuto (2); (1) Divisione di Gastroenterologia, Firenze, Italy; (2) Consulente Sistemi Informativi, Firenze, Italy.

A sample of 214 workers in a medium-sized factory in Florence, Italy, has been interviewed with the aim of (1) assessing quality, quantity, and drinking habits (2) assessing if there is a correlation between work aspects and drinking behavior, and (3) affecting alcohol consumption in the factory through a process of health education.

Results show that (1) alcohol is essentially drunk outside of the factory, (2) subjects working in steamy areas seem prone to drink more alcohol (3) 6% of subjects drink more than 80 grams of alcohol per

day, and (4) subjects who were students prior to working in the factory are lower alcohol consumers.

016

ALCOHOL DEPENDENCE AND ALCOHOL ABUSE IN A NATIONAL SAMPLE

T.C. Harford (1) & D.A. Parker (2); (1) National Institute on Alcohol Abuse and Alcoholism, Rockville, Maryland, U.S.A.; (2) California State University, California, U.S.A.

Estimates of the current prevalence of alcohol abuse and alcoholism are sorely needed for establishing public policies and for formulating scientific generalizations. Recognizing that not all alcohol abusers are alcohol dependent, this paper develops estimates of the prevalence of alcohol dependence and alcohol-related consequences among adult men and women in the U. S. The conceptualization and measurement of alcohol dependence was guided by that which is found in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition. The data for this study were drawn from the 1979 national household survey conducted in the U.S.

Among current drinkers, 15 percent of the men and 8 percent of the women in the sample can be identified as alcohol dependent. An additional 9 percent of the men and 5 percent of the women can be identified as nondependent alcohol abusers. Alcohol dependents consume a greater quantity of alcohol per typical drinking occasion, exhibit a greater tolerance for alcohol, and report more frequent episodes of

intoxication. Problems associated with alcohol dependents are highest among men 26-35 years of age and among women 36-55 years of age. Problems among nondependent users are highest among men and women 18-25 years of age. Other demographic characteristics of alcohol dependent and nondependent abusers are presented. While the rates of alcohol problems are higher for men than for women, the rates of alcohol problems among women are of sufficient magnitude to warrant increased attention from those involved in public policy and treatment.

017

ALCOHOL EDUCATION TO REDUCE ABUSIVE CONSUMPTION THROUGH EMBEDDING AND REPETITION OF SELECTED MESSAGES (PROJECT ALCOHOL E.R.A.C.E.R.)

H. Murray, Alcohol and Drug Education Centre, Kingston, Ontario, Canada.

This project proposes to implement a pilot multidisciplinary alcohol education program in the school system. The main thrust of the program is the inculcation of a few (about 3-5) discrete messages with respect to drinking and driving. These messages will be selected on the basis of their consonancy with the preventive goals and objectives of the Government. This educational approach selects the desired messages, translates them into the "language" of school subjects, embeds them in the content of those subjects, and thus unobtrusively employs these various subjects as vehicles for the selected messages, while at the same time illustrating and elucidating the most important concepts of these subjects.

This approach takes advantage of the generally recognized potent role that repetition over protracted time periods plays in instilling messages in the mind. It permits a given selected message to be repeated through different forms of expressions and from different points of view. This is achieved by including the message in each of the subjects taught at a given grade level: This is horizontal repetition. Further repetition obtained by increasing the sophistication of the expression of the message and by broadening the scope of its implications for students as they mature and progress through the hierarchy or grades in the educational system: This is vertical repetition. This process will allow students to discover for themselves the essence of the messages as it is slowly internalized and eventually becomes accepted by the students. They come to see it as their own criterion for valuing behaviour related to the embedded messages. An important aspect of such self-discovery and subsequent acceptance of the essence of the messages is that it is motivated, not by the desire to comply or obey, but by the students' commitment to their own criterion of valuing.

The educational system is the largest social system through which people are processed, and since schooling is mandatory up to age 16, each student will receive the message many times before he leaves school.

ALCOHOL INVOLVEMENT IN U.S. HIGHWAY CRASHES - MAKING POLICY DECISIONS ON INCOMPLETE DATA

J.V. Moulden, National Transportation Safety Board, Washington, D.C.

Since 1980 the U.S. has experienced an explosion in activities to combat the drunk driver involving a substantial commitment of human economic resources, nationwide. Virtually every State has toughened drunk driving statutes, and state and local authorities have increased enforcement of drunk driving laws.

The primary reason for action has been the high levels of alcohol-related fatal and injury-producing crashes experienced in every State. The primary criteria for evaluating the effectiveness of State laws and programs are also alcohol-related fatal and injury crash levels.

A recent Safety Board study shows, however, that as recently as 1983 only 14 States determined the presence of alcohol on 80% or more of the drivers killed in highway crashes. Nationally, only 56.7% of all fatally-injured drivers are tested for alcohol. The presence of alcohol on surviving drivers in fatal crashes or those in injury-producing crashes is even less clearly known because only a few States even have laws requiring the testing of such drivers.

Safety Board recommendations for improving the measurement and reporting of alcohol involvement in highway crashes will be presented, and the implications of incomplete alcohol data on the evaluation of State drunk driving programs will be discussed.

ALCOHOL USE AND ABUSE

E.J. Picard, School of Social Work, FSU, Tallahassee, Florida, U.S.A.

Since 1979, Florida State University has offered a course open to all students in alcohol use and abuse. The course has no prerequisites. The object is to educate students to responsible drinking or nondrinking.

The lecture format utilizes guest speakers from state and local governments, A.A. and professional therapists. Films, bar visits and group discussions provide added interest.

The course is promoted by the office of Dean of Students. The faculty are members of the Departments of Psychology and Social Work.

The purpose is not to train therapists but to give students some information about misusing alcohol and its effect on their own lives.

ALCOHOL USE IN TORONTO

M. Bowers & L. Elinson, Department of Public Health,
Toronto, Ontario, Canada.

In 1983 the City of Toronto Department of Public Health conducted a Community Health Survey to provide health status data on Toronto residents over 15 years of age. Initial analysis of the data indicated that 85% of Toronto residents drink alcohol and 9 percent state they are heavy or chronic drinkers.

The relationship of alcohol use to the social, cultural and economic variables will be discussed as well as the relationship to other health issues addressed in the survey. The Toronto data will be compared to similar findings in other studies in Canada. Alcohol-related mortality and morbidity in Toronto will also be discussed and compared to data in other areas of Canada.

Finally, the implications for how this data may be used for planning and evaluation of programs for the Department of Public Health will be outlined.

ALCOHOLIC DRINKING HABITS IN A PRIMARY SCHOOL IN SOUTHERN ITALY

M.T. Salerno, E. Altomare, G. Vendemiale, A. Amendola, L. Pascale, T. Trione, G. Palasciano & O. Albano, Department of Medicine, University of Bari, Bari, Italy.

The investigation has been carried out to study drinking habits of children and their families.

A total of 350 children in a primary school in Bari (South Italy) (age 9.2 years) (range 7-13) received a questionnaire to indicate age, sex, their drinking habits, drinking habits of their families, and the family attitude to their drinking habits.

The results obtained from the 314 questionnaires indicate:

- a high percentage of drinking habits in children;
- a higher percentage in males than in females among daily drinkers (1.8:1);
- a lack of influence of parents on drinking habits of children, and;
- a high percentage of parents with drinking habits out of meals in the group of children with a daily drinking habit.

ALCOHOLIC LIVER DISEASES - BASIC AND CLINICAL ASPECTS

K. Fujisawa, K. Kimura, M. Yamauchi, Y. Watanabe, K. Ogura, H. Kawase & H. Kameda, Department of Internal Medicine, The Jikei University School of Medicine, Tokyo, Japan

More than 80% of ingested ethanol is rapidly absorbed from the upper gastrointestinal tract, 90-98% of which is selectively oxidized to acetate in the liver and then subjected to complete oxidation in the peripherals. One gram of ethanol thus generates in vivo 7.1 kcal. of energy. Accordingly, the metabolic rate of ethanol in the liver is closely dependent on the personal nutritional state or the daily dietary constituent. It has been our contention for years that a major role is being played by low-protein diet or high-fat diet in the development and progression of alcoholic liver diseases.

Based on the experimental studies conducted in male Wistar rats, we are maintaining that (1) ethanol per se does not induce even the hepatic fatty changes in the absence of negative dietary factors such as low-protein or high-fat, (2) although a marked fatty infiltration is manifest in the high-fat/ethanol group, hepatic fibrosis does not occur in this group, and (3) while fibrosclerosis of central veins of the liver and pericellular fibroplasia develop prominently in the low-protein/ethanol group as well as in the low-protein/high-fat/ethanol group, these lesions are not accompanied by hepatocellular necrosis or inflammation. Accordingly, it seems probable that liver cell necrosis or inflammation, like alcoholic hepatitis, is not a necessary precursor of a

characteristic fibrosis in alcoholic liver, but dietary factors such as low-protein/high-fat intake play a major role in inducing central fibrosclerosis and pericellular fibrosis, lesions seen at the early stage of clinical alcoholic liver diseases. Biochemical studies and a clinical survey are also reported in this paper.

023

ALCOHOLICS ANONYMOUS

K. Tartre, Edmonton, Alberta, Canada.

The display for Alcoholics Anonymous will consist of a world map identifying countries in which groups or "loners" are currently found. With the map will be an A.A. pamphlet where it is published in the language of the region. Handout material will provide basic information on what A.A. is and does, what it does not do and where it may be found. Addresses will be provided for General Service Offices and Central Offices for all countries where these exist. The intent of the personnel at the display will be to serve as a resource in the treatment/rehabilitation of the alcoholic.

ALCOHOLICS ANONYMOUS AS AN ADJUNCT TO TREATMENT

G.M. Patrick, Chairman General Service Board,
Alcoholics Anonymous U.S./Canada, Lyndhurst, Ontario,
Canada.

Clinicians treating alcoholism recognize the difficulty that the chronicity of the disease presents to long term management. Those successful in the treatment of alcoholism have been innovative in devising continuing care systems which help the patient prevent relapse with the resulting damage sequelae. Effective continuing care programs to prevent relapse are costly and difficult to administer if the patient is not readily accessible to the treatment resource.

Treatment which enables patients to use Alcoholics Anonymous as a prescribed component of an after care regimen demonstrate the efficacy and cost effectiveness of this adjunct to treatment by high remission rates.

The paper examines important considerations for those involved in the development of co-operative relations with Alcoholics Anonymous members to ensure after care activities will be an adjunct to therapy that safeguards professional ethics and the Alcoholics Anonymous tradition of non-affiliation.

ALCOHOLICS: CLINIC VS GENERAL POPULATION REALITY

H.A. Mulford, Alcohol Studies Unit, University of Iowa, Iowa City, Iowa.

Although much of our knowledge and treatment programming for alcoholics is based on observation of institutionalized cases, such cases may have little in common with nonclinic alcoholics. Clinic alcoholics have reached the end of the clinicalization process; and are probably more advanced in both the alcoholic and rehabilitation processes. However, specific differences between clinic and general population alcoholics (GPA's) have been little researched.

This report compares clinic alcoholics with GPA's sharing a common geographic area and common diagnostic criteria. Comparisons are made on several sociodemographic and certain drinking and related variables. Two cross-section samples of GPA's in Iowa, one obtained in 1961 and the other in 1979, are each compared with samples of clinic alcoholics admitted during the same time periods.

The attributes of both the 1979 GPA and clinic samples differed from their respective earlier samples, with large differences between GPA's and clinic alcoholics persisting at both time points.

The implications of these differences between clinical and general population reality for the clinicalization, alcoholic and recovery processes is discussed, as are the implications for prevention and treatment programming.

ALCOHOLISM EDUCATION FOR THE MEDICAL PROFESSION

T.F. Beltrame, Gateway Community Services, Jacksonville, Florida, U.S.A.

American medical schools provide little, if any, formal training to that nation's primary health providers in the diagnosis, treatment, and rehabilitation of its estimated 10 to 15 million alcoholics. The literature supports the fact that even in hospitals that provide alcoholism services, a significant number of alcoholics seen in other medical services go undetected for their alcoholism.

Several communities, among them, Jacksonville, have attempted to fill this gap in training. The state of Florida and the City of Jacksonville provided funds to Gateway Community Services, a comprehensive alcoholism treatment agency, and the University of North Florida to develop a two-week combined didactic and clinically experiential training package for local medical residents.

A training manual was developed containing 7 discrete modules: attitudes; natural history; pathological, psychological, and sociocultural considerations; Alcoholics Anonymous; and referral networks. Other written and audiovisual aids were selected to complete the didactic package which takes about 20 hours to cover. The remaining 60 hours of training is devoted to clinical experience in selected alcoholism treatment sites.

This paper is intended also to share the experiences and potential pitfalls and some guidelines in the planning, development and implementation of such an education and training program.

027

ALCOHOLISM IN FAMILIES: ISSUES OF MEDICAL MORBIDITY, HEALTH CARE USAGE, PHYSICIAN RECOGNITION AND PREVENTION

V. Mikow & K. Magruder-Habib, VA Medical Center, Durham, North Carolina, U.S.A.

The proposed study is designed to provide an assessment of the prevalence of alcohol abuse and the incidence of medical morbidity in families screened for alcohol abuse in a general medical out-patient setting. We will also study their health service utilization patterns and presenting symptomatology. In addition, we are proposing to study factors which affect recognition of alcoholism in the family by physicians.

The general design of the study is a randomized quasi-experiment (Cook and Campbell, 1979) and will follow closely the methodology of Zung, et al., (1982) and Zung and Magruder-Habib (1984).

Identification of alcohol troubled families will be made using the modified family Michigan Alcoholism Screening Test (MAST). We will screen approximately 1000 patients in order to yield 300 families with alcohol disorders. Patients will be randomized (at a ratio of 1:1) into two groups: inform the physician versus do not inform the physician.

All patient records will be monitored for the next 12 months to chart health services utilization.

In addition, we will obtain 300 non-alcohol abusing families to match with the experimental groups. We will examine their medical records for the same 12 month period to document health care service utilization patterns for normal families. For most of these analyses, two analysis frameworks are of interest. The classical chi-square framework allows us to look at the rates (for example, differences in % diagnosed alcoholic patients between MD:informed and MD:not informed) in an easily interpreted fashion. The second analysis framework is that of logistic regression (Kleinbaum, Kupper and Morgenstern, 1982). These two analysis frameworks will allow us to test whether the informed physicians were more likely to diagnose, treat, and/or refer alcoholic families than uninformed physicians.

028

ALCOHOLISM PREVENTION PROGRAMS AND PROPOSALS IN SEASONAL RESORT AREAS

W.H. Hevener, Cape May County Council on Alcoholism, Cape May County, New Jersey, U.S.A.

The excessive use of alcohol in seasonal resort areas is not a new or unknown problem. The continued use of alcohol on a routine basis, coupled with the use of illicit drugs, by the congregating populous is a new and major problem.

The availability and acceptability of alcohol to the youth utilizing the resort for seasonal employment or extended visits is a known generator of this problem and is discussed.

The availability of services, programs of education, and the efforts of enforcement are clearly inadequate and inappropriate. Locally designed programs are directed at the permanent population, thus failing to meet the basic needs of seasonal populations congregating in these areas.

Specific needs are discussed with proportional effort directed to the youth. Planned and proposed programs, along with current programs, are discussed with an overview into the entire problem of resort areas confronting massive population increases while maintaining fixed resources and services.

029

THE ALCOHOLISM REHABILITATION PROGRAM OF THE CANADIAN FORCES

S. Brochu, J. Bardsley, & J. Roy, Directorate of Preventive Medicine, Department of National Defence, Ottawa, Canada.

For several years, the Department of National Defence (DND) has been concerned about the use and abuse of alcohol among its personnel. The Canadian Forces (CF) Alcoholism Rehabilitation Program (ARP) was officially established five years ago to treat members who show signs of alcoholism. There are now five Alcoholism Rehabilitation Clinics throughout Canada and one in

Germany. More than three thousand CF members have been treated through the program since 1980. Unfortunately, no real scientific evaluation had been done on the effectiveness of the treatment until November 1984 when a pilot evaluation of the program started in one of the clinics.

After giving a description of the therapeutic model of the Alcoholism Rehabilitation Program and some statistics about the patients treated, this paper will give an overview of the evaluation procedures used and the first results of the pilot project. Some attention will be given to the validity of different outcome measures such as self report, collateral report, official records, breath alcohol test, physiological tests and staff reports.

030

ALCOHOLISM SERVICES FOR THE CHRONIC PUBLIC INEBRIATE

C.M. White, The Bowery Residents' Committee, Inc., New York City, New York, U.S.A.

The Bowery of New York City is synonymous with chronic, public inebriates. However, The Bowery is less a geography than a state of hopelessness encompassing not only alcoholism in its end stages, but also indigency, homelessness, malnutrition, myriads of other medical conditions, and, very often, psychiatric disablement.

The Bowery Residents' Committee, Inc. delivers alcoholism services to this population in a way that utilizes both the formal organization and draws upon informal systems in an attempt to meet the range of presenting needs. Service delivery is often not in a

traditional mode; alternatives being selected to fit budgetary constraints and patient characteristics. Self help, patient strengths, and indigenous paraprofessional staffing are integral components in approach to treatment. Services are offered on an emergency, daily and transitional basis, a framework which allows patients to make continual progress in their development toward self-sustaining life.

The resultant service provides accessible, appropriate, available care for all who need it regardless of their level of functioning or means in a cost-effective and efficient manner.

This paper describes our work, its successes and failures, and discusses how such services could be replicated and made culturally appropriate for like populations in other areas.

031

ALCOHOLISM: THE COSTS OF THE PROBLEM AND ITS TREATMENT

R. Niven, National Institute on Alcohol Abuse and Alcoholism, Rockville, Maryland, U.S.A.

The paper highlights newly released estimates of the costs of alcoholism in the United States, as well as findings from studies relevant to the costs of alcoholism treatment. It is concluded that, in the aggregate, these studies offer increasingly persuasive evidence that (1) alcoholics and their families use more health care services than nonalcoholics, (2) this elevated demand is reduced substantially following treatment for alcoholism, and (3) the benefits of

alcoholism treatment outweigh its costs. In addition, a number of findings relevant to length of treatment and diagnosis are presented.

032

ALCOOL, TABAC, MEDICAMENTS ET SEXUALITE

J.-P. Ferrant, Benard & Cellier, Centre Louis Sevestre, La Membrolle sur Choisille, France.

Une étude a été menée au Centre Louis Sevestre (Centre de Désintoxication et de Rééducation pour malades alcooliques) sur 80 malades masculins pris au hasard après 3 semaines de cure.

Son objectif principal était de connaître les facteurs de risque, ainsi que les facteurs favorisant les troubles sexuels chez nos malades avant leur entrée en cure, et d'évaluer la potentialisation possible des différents toxiques avec l'alcool.

Il est apparu au terme de cette enquête, que l'âge, la consommation de tabac et les signes objectifs d'imprégnation éthylique, étaient trois facteurs de risque de troubles sexuels, et ce, de façon significative.

De plus, selon que les sujets sont exposés à zéro, un ou deux de ces facteurs, il existe une différence de fréquence hautement significative pour les difficultés sexuelles rapportées.

ALL-NIGHT POLYSOMNOGRAPHIC CHARACTERISTICS OF LONG TERM ALCOHOL ABSTAINERS

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It is well known that alcoholics who have been abstinent for a long period often complain of sleep disturbances. These disturbances may be responsible for the failure of abstaining from alcoholic beverages. There are, however, few reports with regard to sleep characteristics of long term abstainers.

In the present study, the alcoholics (N=10, 37-50yrs) who had been abstinent for 1-9 years were examined polysomnographically to reveal their sleep characteristics. The polysomnographic findings were compared with those of alcoholics (N=10, 30-51yrs) at the 30th night after withdrawal and controls (N=10, 36-49yrs) who had no sleep disturbances. Furthermore, CT scans were performed in all subjects.

The results were as follows:

- 1) Compared with controls, %SWS (slow wave sleep) was markedly reduced, while %S1 (stage 1) was elevated in long term abstainers. These characteristics were similar to those seen in alcoholics at the 30th night after withdrawal.
- 2) The percentage of SWS in long term abstainers was reduced progressively as their age advanced.

($r=-0.666$) and as their drinking period prolonged($r=-0.578$).

- 3) There was no relationship between %SWS and the length of abstinent period in abstainers.
- 4) The cerebral atrophy revealed by CT scan was more pronounced in abstainers and alcoholics than in controls.

034

AN ANALYSIS OF POLICY AND PROGRAM IMPLEMENTATION FOR THE IMPAIRED NURSE: WHAT IS BEING DONE IN THE UNITED STATES

L.M. Gerace, College of Nursing, University of Illinois, Chicago, Illinois, U.S.A.

The purpose of this paper is to provide an overview and analysis of policy and program implementation which deals with the issue of impaired practice within the nursing profession in the United States. Professional state and national organizations and specialty groups have had key roles in initiating a formal position statement by the American Nurses Association (ANA) to address the problem of practice by nurses whose judgement is impaired by drugs, alcohol or psychological dysfunction. Articulation of the ANA with the State Boards of Nursing has been crucial to the development of policy which guides program implementation on state and local levels.

Policy for the impaired nurse is analyzed by examining it in terms of the "least advantaged" recipient. Social costs and benefits are determined by assessing potential policy outcomes on the impaired nurse,

professional colleagues, health care institutions and public welfare. The ramifications of the mandatory reporting clause are discussed. In addition problems in local level program implementation are highlighted.

035

ANTECEDENTS OF IMPAIRMENT AMONG STUDENT NURSES

M.R. Haack, College of Nursing, University of Illinois, Chicago, Illinois, U.S.A.

An increasing amount of study in the United States has been devoted to the problem of the impaired health care professional. Professional impairment refers to a decline or disruption in performance of practice due to psychological dysfunction or substance abuse. There is no hard data on the prevalence of impairment among nurses, but estimates are high because of the stressful nature of the work and access to mood altering substances. This paper will report on a longitudinal study on the antecedents of impairment among student nurses (n=300). The major findings of this study are as follows:

- (1) The prevalence of alcohol use was comparable to that of young adult women nationally while the prevalence of use of marijuana and other drugs was lower than national estimates.
- (2) Approximately one-third of the students reported the use of alcohol on two or more days in the week prior to the study, and the frequency of drinking was positively related to other measures of heavier drinking.

- (3) Alcohol use was significantly related to the use of tobacco and illicit drugs and is consistent with developmental models of involvement in drug use reported in the literature.
- (4) The majority of students reported levels of staff burnout comparable to those of professional nurses, and the level of experienced burnout - emotional exhaustion and depersonalization - increased with year in school.
- (5) The level of experienced burnout was lower among students who reported more frequent support and expressed concern from others in their environment.
- (6) Both the frequency and intensity of depersonalization were significantly correlated with the frequency of alcohol use and other measures of heavier drinking.
- (7) Over 50% of the sample was at risk for depression.

036

APPLICATION OF A TREATMENT SYSTEM MODEL IN RURAL ALBERTA

F.B. Glaser (1) & R. Hubbard (2); (1) Addiction Research Foundation of Ontario, Toronto, Ontario, Canada.; (2) Alberta Alcohol and Drug Abuse Commission, Edmonton, Alberta, Canada.

The core-shell treatment system model was developed and tested in the Clinical Institute of the Addiction Research Foundation in Toronto; an urban area with a highly concentrated population.

It posits the heterogeneity of treatment-seeking populations, and attempts to match each client to that

intervention which is most appropriate to his needs. Provision of differential treatment is accomplished through a core of fundamental services (primary care, assessment, and research) which resonates with a shell of multiple, carefully defined interventions. Available evidence suggests that such a service delivery design is more efficient and effective than nonsystematic alternatives.

AADAC is planning a large-scale application of this treatment system in its northwest region, centered at Grande Prairie, Alberta. In contrast to the development site, the application site is rural and has a dispersed population. Modifications have accordingly been introduced into the design to enhance its applicability. However, the fundamental principles of the design remain. Application of the system may be of interest to others charged with the responsibility of service delivery in similar areas.

037

ASSESSMENT AND VARIABLY INTENSE INTERVENTIONS: A SYSTEMS APPROACH TO D.U.I.

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Intoxicated drivers are a diverse population and reach intervention programs by a variety of paths. The D.U.I. offender falls into a sub-group which receives intervention as a result of legal referral. Despite the diversity, it is possible to make a few generalizations that apply to most D.U.I. offenders.

The most important is that the majority are not alcoholics or drug addicts. There is a need for programs specifically designed to handle diversity.

The intent of this presentation is to briefly review the literature, including the seriousness of the D.U.I. problem; legal developments; success of D.U.I. programs; diversity of alcohol abusers; and the range of approaches to intervention with D.U.I. offenders and alcohol abusers generally. I will then outline the Cook County Illinois program approach to the problem with special emphasis on assessment and variably intense interventions, the critical components of any D.U.I. program.

038

AN ASSESSMENT OF ALCOHOL ABUSE PROGRAMS IN ARTIC CANADA

V. Fraser-MacKay, Government of the Northwest Territories, Yellowknife, N.W.T., Canada.

Arctic Canada is known for leading Canada in the highest rate of alcohol consumption on a per capita basis. Presently alcohol abuse in Arctic Canada has already become a problem of epidemic proportions and has resulted in erosion of much of the native culture. However, several communities have now taken steps to reduce the prevalence of alcohol abuse at the local level and to encourage a return to earlier cultural pursuits.

Programs in Arctic Canada are unique, being influenced by the vast geographical area, the extreme climates and the sparse population. This paper will assess the

implementation and effectiveness of Arctic Canada Alcohol and Drug programs. A comparison will also be made between these programs and those of other countries with similar sociocultural climates.

039

AN ASSESSMENT OF COMMUNITY PARTICIPATION IN DRUG ABUSE CONTROL, PREVENTION, TREATMENT AND REHABILITATION IN SELECTED COMMUNITIES IN METRO MANILA

E.A. Pangalangan, University of the Philippines Diliman, Quezon City, Philippines.

Alarmed by the growing magnitude of the problem of drug abuse and its serious threat to life and order in society, decision-makers are searching for appropriate and effective measures to deal with it. It has been realized that an actively participant citizenry could play a crucial role in effecting a lasting solution to the drug problem.

The nature and extent of community participation in drug abuse control, prevention, treatment and rehabilitation was studied in some communities in Metro Manila, including community awareness, attitudes and perceptions toward drug abuse and drug dependence.

The data showed that the limited participation of the community is due to the lack of involvement in the decision-making processes on this problem.

The study also includes the nature and extent of collaboration between government and non-government organizations.

THE ATTITUDES OF NURSES AFFECTING THE REHABILITATION OF IMPAIRED NURSES USING AND ABSTAINING FROM DRUGS AND ALCOHOL

L.N. Marks, (1) J.C. Reed, (2) & D. Alexander (3);
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(2) & (3) Care Unit, Fort Worth, Texas, U.S.A.

A major issue in nursing today centers around the nurse who is chemically impaired. Historically, the profession of nursing has been unwilling to deal with approximately five to sixteen percent of practicing nurses who are dependent upon alcohol or drugs. The denial of this problem becomes an obstacle to the nurse needing rehabilitation. This investigation sought to determine the attitudes of practicing professional nurses from a four state region. An attitudinal survey was administered to compare attitudes toward the practicing nurse who is abusing alcohol and drugs to attitudes toward the impaired nurse who sought treatment and is abstaining from use of alcohol and drugs.

The results indicate a significantly more negative attitude toward the nurse who is actively practicing addiction than the nurse who has sought rehabilitation. Analysis of data comparing attitudes toward the impaired nurse using drugs and alcohol and the nurse abstaining resulted in a significance at .05 level or better.

It is the conclusion of the investigators that positive and negative attitudes of professional peers or colleagues can contribute to the rehabilitation of the impaired nurse. Increased professional awareness of

the problems faced by the impaired nurse will facilitate interventions which result in the impaired nurse seeking treatment and rehabilitation. The return of the nurse, following rehabilitation, to the workplace will contribute to the profession. Through increased recognition of this complex issue, the profession of nursing will seek more healthful means of extending care to the impaired employee.

041

BENEFITS AND DRAWBACKS OF USING PSYCHOTHERAPEUTIC METHODS IN SHORT-TERM REHABILITATION PROGRAMS FOR DRINKING DRIVERS

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Different rehabilitation programs for drinking drivers are being accomplished in Austria and Germany. The programs in use vary by mode of assignment, by length of time, by respective number of sessions and by the psychological treatment approach. They do not differ in their objective, i.e., the reduction of DWI (driving while intoxicated) offences.

The existence of different psychological rehabilitation designs is not only the result of the fact that various organizations are involved. It is also an essential part of a long-term evaluation study that was started in 1978.

Preliminary study findings that show a dramatic reduction of the participants recidivism rates are presented.

Despite the positive treatment results a continuous improvement of course methods takes place. In order to achieve a real insight into the true feelings and attitudes of DWI offenders, an attempt was made to combine techniques of life-style analysis in accordance with Adler's Individual Psychology with those of Moreno's Psychodrama (e.g., role playing, role reversal, mirror-technique, auxiliary egos).

The paper describes the progress of the development of useful and effective tools for DWI rehabilitation and points out the limitations of the application of psychotherapeutic methods in short-term treatment.

042

THE BEST OF BOTH WORLDS - A RETROSPECTIVE OVERVIEW OF SUBSTANCE ABUSE PREVENTION

M. Grant, Division of Mental Health, World Health Organization, Geneva, Switzerland.

A comprehensive review of the history of substance abuse prevention is not possible in one short paper. The author therefore selects three basic themes and examines them in the light of demonstrable phases of development.

- (1) Prohibition or moderation ? A comparative analysis of competing approaches to substance abuse, focusing upon the salience of different concepts at

different points in time.

- (2) Combined or separate approach ? A discussion of the swings in enthusiasm for considering alcohol, drugs and tobacco as separate problems requiring separate solutions, or as linked phenomena demanding an integrated response.
- (3) National or international efforts ? The changing face of prevention, as revealed by trends in research and action including the development of the WHO alcohol and drug programs.

An attempt is made, finally, to extract a few lessons from the past which could prove useful in guiding present work. The author suggests that it is no longer possible to draw false comfort from the idea of being in a phase of transition from a concept of disease prevention to one of social control. The time has come to try to combine the best of both worlds.

043

BETWEEN TREAT AND TREATMENT - METHADONE: PAST, PRESENT AND FUTURE

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University of Utrecht, Utrecht, The Netherlands.

This year it will be 20 years ago that Vincent Dole and Marie Nyswander published their report on "A Clinical Trial With Methadone Hydrochloride".

Methadone has been known for a longer time. German chemists synthesized this analgesic because of their lack of opiates during World War II, calling it

"Adolphine": samples were taken back to the USA after the war.

In the sixties heroin in the USA spread out of the black ghettos into the white middle class.

Heroin addiction was seen as a metabolic disease and metabolic expert Dole was asked to set up a program for heroin addicts in cooperation with psychiatrist Nyswander. An important key-stone in the Dole-Nyswander treatment was the use of methadone for narcotic blockade: the blockade-hypothesis, which later turned out to be incorrect.

In their "Ten Years Perspective" Dole and Nyswander reviewed the facts.

In this contribution, discussion will focus on technical and ideological matters, different concepts of treatment and the perspectives underlying them, and recent developments in Europe, particularly in the Netherlands.

044

BRITISH OPIATE POLICY AND THE OVERPRESCRIBING PHYSICIAN: AN INTERNATIONAL PERSPECTIVE ON AN IMPORTANT HISTORICAL ERA

J.C.S. Blackwell, Addiction Research Foundation, Toronto, Ontario, Canada.

Chroniclers of the Rolleston era have disagreed over how much emphasis to place on the role of overprescribing physicians in its dissolution. During the

1960's, these doctors undeniably augmented a "grey market" in pharmaceutical opiates and cocaine, and this partly explains the observed increases in the numbers of nontherapeutic dependents in the U.K. Accordingly, the doctors are seen as causal agents in contributing to the problems which led to major changes in Britain's opiate policies.

Previous analyses have taken the existence of these doctors as given. This paper takes a different approach by examining them as an historical phenomenon. During the four decades in which Rolleston policies had been successfully in force, such physicians were remarkable by their absence. Why, then, did they so suddenly appear in the post-War period?

It is argued here that, rather than considering the "script doctors" solely as contributors to its demise, it is more theoretically appropriate to view their emergence as one indicator of the social and cultural changes that were already threatening to undermine the Rolleston era.

045

CANADA'S FAR NORTH: LEARNING TO LIVE WITH ALCOHOL

H. Balanoff & J.C. Thomas, Department of Education and Alcohol and Drug Services, Government of the Northwest Territories, Yellowknife, Northwest Territories, Canada.

Alcohol use is not a new phenomenon in the northernmost part of Canada. The people of the Northwest Territories have been in contact with alcohol since the early

600's via contact with whaling, the fur trade and exploration activities.

The use of alcohol plus the associated social ills related to alcohol abuse have seriously impacted on the lives of the people in the North. Combined with variables such as resettlement, political development and transition into a wage economy, this use has made the Northwest Territories one of Canada's leaders in alcohol consumption.

A major prevention initiative has been taken by the Government of the Northwest Territories in the form of an alcohol and other drug curriculum which will be taught at all grade levels, in all schools.

The paper will outline the development and implementation of this initiative to promote healthier life-styles in Canada's northernmost jurisdiction.

46

CANADIAN ADDICTIONS FOUNDATION: PRESENT CHALLENGES AND FUTURE THRUSTS

G.R. Ramsey, Alcoholism Foundation of Manitoba, Winnipeg, Manitoba, Canada.

Conceived in 1954 as the Canadian Council of Provincial Programs, C.A.F. was chartered federally in 1962. Initial objectives included networking activities with organizations in both the public and private sector, policy development, information distribution, fund raising and program development. The historical evolution of the Council to C.A.F. is discussed.

The growth and development of national voluntary foundations is frustrated by various organizational and societal pitfalls. Challenges faced by C.A.F. included:

- (1) Deficient financial resources effecting:
 - (a) the recruitment of staff.
 - (b) the operational costs required for staff and volunteers to participate fully in projects and activities of the organization.
- (2) Organizational hurdles including:
 - (a) geographical dispersement of Board members requiring costly meetings which utilize scarce funds.
 - (b) short appointments of executive officers.
 - (c) participation of official addiction agencies (federal, provincial, territorial) in the affairs of the foundation.
- (3) Accountability issues requiring that products are produced to maintain credibility and viability of C.A.F. to the membership and major funders.

The paper concludes by presenting the strategy adopted by C.A.F. to become the national authority providing leadership in dealing with the abuse of alcohol and other drugs by formulating policy statements advocating an informed position, and addressing the needs and concerns of its members.

CANNABIS INFORMATION PROGRAM

J.H. Mintz & I. Rootman, Health Promotion Directorate,
Health and Welfare Canada, Ottawa, Ontario, Canada.

The use of cannabis by adolescents is of concern to Health and Welfare Canada since it has become widespread and research has demonstrated that it is hazardous to health, especially during developmental periods.

A national survey of young Canadians between the ages of 12 to 19 conducted in May 1982, found that more than one in four of this age group had tried marijuana at least once. The Department conducted qualitative studies of young people across Canada and found that peer pressure was considered to be a strong influence on the decision to use marijuana and that use appeared to decline when teens reached their twenties. These studies also found considerable confusion and ignorance about cannabis use as well as a desire for accurate information.

Based on the above information and requests from public and national and provincial groups, the Health Promotion Directorate launched the program entitled Stay Real in March 1983. The objectives of the campaign were to raise awareness of the adverse health and social effects associated with cannabis, to develop a societal climate supportive of the non-use of drugs, and to delay onset. The primary target group consisted of 10 to 18 year-olds and the secondary target group were the parents of this group.

This paper describes the development of the program as well as reports on the results of the evaluation conducted over the past two and a half years.

048

CATABOLISM AND INACTIVATION OF ACETALDEHYDE IN THE ANIMAL ORGANISM

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Acetaldehyde of the endogenous origin (from pyruvate phosphoethanolamine, etc.), that forms from ethanol or that which enters the body from exogenous source (smoking, atmospheric pollution, etc.), undergo enzymatic and non-enzymatic transformations.

Enzymatic transformations of acetaldehyde (oxidation, reduction, aldol condensation) and its non-enzymatic binding to blood proteins were studied both in vivo and in vitro.

A considerable portion of acetaldehyde within the body occurred in the unstably bound forms (Schiff bases, semimercaptals), and some of the compound was covalently bound to albumin and hemoglobin. Protein also catalyzed unspecifically the interaction of acetaldehyde and pyruvate to form acetoin.

The adaptive changes of the systems of acetaldehyde generation and catabolism were studied during chronic alcohol intoxication (6 months) and withdrawal periods. In the case of withdrawal, we observed a decrease in

the activity of low K_m aldehyde dehydrogenase, which is considered as a manifestation of intimate regulatory relationships between the enzyme and the level of its substrate. On the whole, endogenous acetaldehyde is regarded as a natural composite of metabolism.

049

LE CERTIFICAT DE TOXICOMANIES DE L'UNIVERSITE DE MONTREAL

L. Nadeau, Faculté de l'éducation permanente, Université de Montréal, Montréal, Canada.

Le Certificat de toxicomanies: prévention et intervention est un programme universitaire comprenant un ensemble de cours totalisant 30 crédits, soit 450 heures de cours. Il a été conçu en 1978 pour répondre aux besoins de formation des intervenants dans le domaine de la consommation et surconsommation des drogues psychotropes.

Le programme est constitué d'un bloc de cours obligatoires comprenant quatre cours portant sur la problématique de l'utilisation des drogues, sur la pharmacologie, sur les théories et modèles de consommation, et sur l'analyse sociologique des différentes approches préventives. Deux blocs de cours à option suivent ces fondements.

Le premier permet d'approfondir des thèmes tels l'intervention sociale, familiale ou personnelle et la dimension neurophysiologique. Le deuxième aborde les sujets de concentration: prévention, intervention en milieu ouvert, intervention en milieu résidentiel,

intervention en milieu de travail, intervention de type juridique. L'étudiant pourra faire un stage supervisé dans le sujet de concentration choisi.

050

CHANGES IN PRE-TREATMENT - POST-TREATMENT CLIENT FUNCTIONING

A. Dyer, Alberta Alcohol and Drug Abuse Commission
Edmonton, Alberta, Canada.

AADAC's West End Center runs a two-week out-patient day counselling treatment program for people with addictions problems. As part of an evaluation, client changes in emotional health, social and leisure life satisfaction, family life, employment and drinking and/or drug use were assessed at intake and at three-month follow-up.

Relationships among indicators of change in these five areas are examined. Particular attention will be paid to the effects of depression on the measurement of the other areas of client functioning. Discussion will focus on treatment program implications in group programs.

CHARACTERISTICS OF ALCOHOLICS IN ALCOHOLICS ANONYMOUS

G.M. Patrick & J.K. Jackson, General Service Board of Alcoholics Anonymous, New York City, New York, U.S.A.

At three-year intervals the General Service Office of Alcoholics Anonymous conducts a survey of its membership of alcoholics in Canada and the United States to determine its major characteristics and their trends. The most recent was in 1983, and was conducted via a stratified sample of A.A. groups registered at the General Service Office.

Results of the 1983 survey show, inter alia, that the proportion of women has remained essentially constant over the past six years but that the proportions of young people and of those reporting an additional addiction are increasing. In addition, analysis of the rates of recovery and the limitations of the data will be discussed.

CHARACTERISTICS OF RECOVERY FROM ALCOHOL AND DRUG IMPAIRMENT IN REGISTERED NURSES

This study was supported in part by a grant from the Weldon Spring Foundation.

J.J. Sullivan, University of Missouri, St. Louis School of Nursing, St. Louis, Missouri, U.S.A.

The purpose of this project is to identify variables

associated with impairment due to alcohol or drug dependency in a population of registered nurses in order to predict which nurses are at risk. Research data on the population of alcohol and drug impaired nurses are scant.

Subjects were selected from a national population of registered nurses (N=100) recovering from alcoholism or drug dependency and who respond to a request to participate; and a control group selected from a population of registered nurses (N=100) who are not identified as impaired and who live in the United States. Subjects were asked to complete an extensive questionnaire requesting information concerning: demographic variables; family history (past and present); education; employment history; medical history; job-related stressors; life-style characteristics and alcohol and drug-related behaviours.

Data collection is in progress at the present time. It is anticipated that the results of this study will provide the information necessary to recognize symptoms of alcoholism and drug dependence in nurses and to plan intervention and prevention programs aimed at reducing the incidence.

CHARACTERISTICS OF THE SENIOR HIGH STUDENT WHO DRINKS AND DRIVES

Finley, Montana State University College of Nursing,
Missoula, Montana, U.S.A.

This session discusses the demographics of the most frequent cause of death or disability of American youth alcohol-related accidents.

A stratified random study of six high schools in western Montana was completed using a self-administered survey tool. The sample size was 1,459. The students were frequent drivers on both weekdays and weekends. It was not uncommon for them to drive under the influence of alcohol; 45% report doing it some of the time and 11% do it weekly. The typical drinking driver was apt to be a twelfth grade male student who obtained his alcohol from a gas station. Family trouble and police trouble because of alcohol was positively correlated with drinking and driving as was the number of accidents. There was a significant positive relationship between the amount of beer drunk by those who drink in the car; 47% of those who drink 7 cans of beer state they use the car as a drinking context "most of the time". The motive most often chosen for drinking by those who drink and drive was "to get drunk or very high". Those who are frequent drinking drivers were also more likely to drink not only beer weekly but also to drink hard liquor more frequently than other students. Twenty-three percent of the students were weekly passengers with drinking drivers.

This study documents identification and treatment of the student who is a heavy drinker as well as environmental support for reducing the probability of the case as a drinking context. Involvement of police, family and school component in the health promotion and primary prevention efforts focused on youth, alcohol and traffic accidents is urged.

054

CHEMICALLY DEPENDENT WOMEN AND FAMILY VIOLENCE: TREATMENT PERSPECTIVE

M. Dragan & J. Tait, Aurora House, Vancouver, British Columbia, Canada.

In the last 5 years at Aurora House, women have come into treatment not only with multi-addictions chemicals but also disclosing a broad spectrum emotional, physical and sexual abuse. The number of women disclosing appears to be on the increase. There also appears to be specific patterns of repeated abuse ranging from early childhood on into adulthood and are often multi-generational.

In the past year we have begun developing a profile which will give us more information in the area of addiction and family violence. We have also incorporated a specific treatment approach into our program which addresses the issue of women and violence.

is issue is addressed through 3 levels. First by providing knowledge through lectures, groups and films. Next by sharing or disclosure at both the counselling and group level and finally by restructuring behaviour through yoga, self-esteem building, mapping and sculpturing.

11 levels are approached in conjunction with the primary issue of addiction.

The purpose of this paper is two-fold: one is to share the information gained from collected profiles, and the second is to present the treatment approaches we have found helpful in dealing with this issue.

5

CHILDREN OF ALCOHOL

Feddema & G. Elsdon, Alberta Alcohol and Drug Abuse Commission, Grande Cache, Alberta, Canada.

The National Film Board's Production, "Children of Alcohol" vividly illustrates principles and concepts of an exciting program, dealing with adolescents who have a family history of an addiction. The experience takes place in the scenic Rocky Mountains of Alberta, away from a problem laden environment.

Adolescents learn about their families and themselves through experiential, educational and recreational approaches. Accomplishments are realized through challenging oneself, experiencing responsibility, gaining independence and increasing one's communication skills. Adolescents are encouraged to speak the "language of

the heart", learning the importance of keeping oneself attuned emotionally, mentally, physically and spiritually.

Feedback, follow-up and evaluation have shown that the program has left many of the participants with increased knowledge, self-esteem, life skills and memories that have assisted them along their lifelong pathway.

056

CHILDREN OF ALCOHOLICS: A SYSTEMS APPROACH

T.D. Creighton, Alberta Alcohol and Drug Abuse Commission, Calgary, Alberta, Canada.

Much of our understanding of children of alcoholics (eg. Black, 1979; Wegscheider, 1981), and adult children of alcoholics (eg. Woititz, 1983) has developed from clinical practice. The present paper seeks to integrate this information with theories of child development (eg. Elkind, 1981; Erikson, 1950 and Piaget, 1983) and with theory and research of alcoholic family systems (eg. Berenson, 1976; Bower, 1976).

It is argued that the continuing escalation of symmetrical relationships in alcoholic family systems creates anxiety and stress in all family members. This anxiety exacerbates a lack of differentiation between emotional and intellectual functioning in members. Consequences of lack of differentiation include pronounced tendencies to react emotionally, and other definition, rather than self-definition. These

tendencies reflect as parenting issues, in which parental behaviour becomes inconsistent, egocentric, and reactive rather than proactive. The effects of his behaviour on the child vary according to the child's developmental level, and can produce many of the outcomes observed clinically.

The implications for prevention and treatment will be discussed.

57

CHINESE TRADITIONAL TREATMENT ON DRUG ADDICTION

M.P. Yang, Department of Physiology, University of Hong Kong, Hong Kong.

Traditional herbal medicine and acupuncture have been adopted in some of the Asian countries for centuries. In Hong Kong about three hundred drug addicts have been treated under herbal medicine and about three thousand addicts by acupuncture. The results of such traditional treatment were analyzed and evaluated.

Experimental studies on the effect of certain Chinese herbs on morphine withdrawal symptoms in rats were carried out. The herbs, Qiang Huo, Gou Teng, Chuan Xiong, Fu Zi and Yan Hu Suo were found to reduce the three main withdrawal scores significantly. Action of these herbs on the contraction of guinea pig ileum shows that none of the herbs contained morphine-like substances. The dramatic effect of acupuncture on the withdrawal symptoms was also noted. The effect of five combined Chinese herbs and acupuncture on withdrawal behaviours was compared with that of endogenous opioid

peptides, beta-endorphin, met-enkephalin and dynorphin

It is suggested that traditional medicine and acupuncture, being non-opiate and having less side effects, might be used as alternative or supplementary treatment on drug addiction.

058

CHRONIC ALCOHOLISM AND EVOLUTION OF PAIN AND PROGNOSIS IN CHRONIC PANCREATITIS

T. Hayakawa, A. Noda, T. Kondo, T. Shibata, T. Murase, Y. Sugimoto & Y. Ogawa, Department of Internal Medicine, Nagoya University School of Medicine, Nagoya, Japan.

Chronic alcoholism is an important etiological factor in chronic pancreatitis. Alcohol also influences the clinical features, course and even prognosis of the disease.

To evaluate the effects of chronic alcoholism on the clinical course, evolution of pain and prognosis were studied twice in 155 patients with known course of pain among 271 pancreatitis patients; first in 1978 and then in 1983.

Degree of exocrine insufficiency, degree of glucose intolerance and degree of pain were all more severe in alcoholic pancreatitis (88 patients consuming over 80g ethanol daily) than in nonalcoholic pancreatitis (68 patients consuming less than 80g).

patterns of pain were classified into four types; pain relief none, partial, complete and primary painless. In the first study of 88 alcoholics, pain relief none occurred in 20%, partial in 33%, complete in 32% and primary painless in 15%. In the second study, pain relief none occurred only in 4%, partial in 10%, complete in 28%, primary painless in 7%, death in 18% and loss of follow-up in 33%. Percentages of mortality and abstinence from alcohol during the five years were 8 and 64% in the 88 alcoholic patients, respectively. In initial pain relief none, only 28% abstained, and among six deaths, five patients continued to drink.

Mortality was higher in alcoholic pancreatitis (20% of 47) than in nonalcoholic (6% of 124). The most common cause of death in alcoholic pancreatitis was malignancy (30% of 30 deaths), next cardiovascular and diabetes (17% each).

In conclusion, alcoholic pancreatitis showed poorer clinical course and prognosis. Abstinence from alcohol is a key to better prognosis in chronic alcoholic pancreatitis.

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CHRONIC ALCOHOLISM - PREDISPOSING FACTOR TO ALZHEIMER DISEASE ?

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Psychiatric Treatment Centre, Edmonton, Alberta,
Canada.

Recent electrophysiological data (Porjesz and Begleiter, 1982) suggest a possible different,

underlying pathophysiology for alcohol-related brain deficits and for normal aging. These data evoke doubt on the credibility of the "accelerated aging hypothesis in alcoholism. However, the question about the contribution of alcoholism in predisposing to pathological, dementive aging still applies. It is suggested by the similarity of clinical manifestation in the chronic stages of alcoholic dementia and presenile Alzheimer's dementia, despite their different initial onset. The fundamental criterion for diagnostic differentiation between these two entities relates to a possible dissimilarity of underlying neuropathological problems.

Post mortem brain examinations were made on 13 patients admitted to the Alberta Hospital Edmonton with a diagnosis of alcoholic dementia and on 17 Alzheimer patients. The degree of brain atrophy, frequency of senile plaques and neurofibrillary tangles were assessed within cortical and subcortical formations (as suggested by Ciesielski, et al., 1985). Differences between the two groups were mostly of degree, with more extensive brain pathology in the Alzheimer's patients. The pattern of cerebral impairment was to a large extent similar in both groups, with the principle deficit within the hippocampal formation.

The above observations suggest as a working hypothesis that some cases of alcoholic dementia in fact constitute an initial stage of Alzheimer's disease. Alternatively, chronic alcoholism could be considered as a predisposing factor, accelerating the onset of Alzheimer's disease.

THE CHRYSALIS APPROACH" - A MODEL OF DYNAMIC INTERVENTION

J. Otting (1) & Y. Thorlakson (2); (1) Fort McMurray, Alberta, Canada; (2) Elk Valley Alcohol and Drug Counselling Service, Fernie, British Columbia, Canada.

The Chrysalis Approach is a three-phase model of intervention. Borrowing its components from many established treatment philosophies, we have synthesized a strategy that has approached a recidivism rate of zero in application to the disorder of addiction: this information gained through personal follow-up with individual clients one to two years after exposure to this approach.

Designed to teach the client how events create a negative or positive imprint upon personal and social internal registers, we then lead them through processes designed to free them from any negative associations with significant others that they may have acquired previous to our involvement with them. Since we deal with the emotional content of these experiences, we have found that the therapeutic relationship is considerably affected (both in length of involvement and the development of depth): the client experiences a return to a more creative mode of functioning within a few days of exposure.

CIRRHOSIS OF THE LIVER AND ALCOHOL CONSUMPTION: HOW MUCH SHOULD WOMEN DRINK ?

R.N. Norton, R.G. Batey & T. Dwyer, School of Public Health and Tropical Medicine, University of Sydney Sydney, New South Wales, Australia.

Recent research indicates that in women, the risk of developing cirrhosis of the liver increases at levels of alcohol consumption between 21 and 40g daily. As a consequence, it has been suggested that women should limit their alcohol consumption to 20g a day. However, is this advice justified given the small numbers of women who develop cirrhosis of the liver in comparison with the relatively large numbers of women who consume alcohol at this level?

To further investigate the risks of developing cirrhosis at increasing levels of alcohol consumption, a three and a half year study has been undertaken in Sydney's major hospitals. Data from women with a first diagnosis of alcohol-related or cryptogenic cirrhosis of the liver were compared with data from matched controls.

The mean daily alcohol consumption of cases with alcohol-related cirrhosis was 117.5g, with cases having consumed more than 20g daily for an average of 18.5 years. Data obtained from these cases and their controls were unable to confirm an increase in risk at levels of consumption between 21 and 40g daily. The inclusion of data from cases with cryptogenic cirrhosis and their controls did not alter this result. Significant increases in risk were found in women

onsuming more than 40g daily; this was apparent whether cryptogenic cases and controls were included or not.

The results of this study do not support the suggestion that women limit their alcohol consumption to 20g a day. However, they would support a recommendation that women limit their daily alcohol consumption to 40g or less.

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CLASSIFICATION OF ALCOHOLISM

V. Morozov, All-Union Research Institute of General and Forensic Psychiatry, Moscow, U.S.S.R.

Analysis of the existing classifications of alcoholism has shown that they do not give due attention to the importance of the pathogenic factors that determine the development of different clinical variants of alcoholism.

Special investigations carried out at the All-Union Research Institute of General and Forensic Psychiatry have demonstrated that the premorbid structure of personality is one of the factors influencing the development of alcoholism since it affects the individual symptoms and syndromes and, in addition, determines general clinical patterns of the disease and the rate of its progression in the first place.

The importance of studying the development of alcoholism is based on its main dynamic conception, i.e., its progression rate. This criterion is the most

reliable when classifying alcoholism into different forms or clinical variants that are distinguished by fast, moderate or slow rate of progression.

063

CLINICAL AND ULTRASONIC STUDY ON ALCOHOLIC LIVER DISEASE

T. Yamada, K. Maeda (1); N. Kurioka, S. Shiomi, H. Asai, S. Harihara, S. Yamamoto & T. Monna (2); (1) Department of Liberal Arts, Osaka City University, Osaka, Japan; (2) Medical School, Osaka City University, Osaka, Japan.

Alcoholic liver disease deals with fatty liver, alcoholic hepatitis and liver cirrhosis.

The present study concerns the application of ultrasonography to the patients with alcoholic liver disease for the differential diagnosis between fatty infiltration and cirrhosis. The analysis concentrated on the relation between fatty infiltration ("bright liver") and sonographical pattern.

Ultrasonic examination was applied to 137 patients who had liver biopsies. Twenty-four cases had past history of excessive alcoholic drinking (more than 80gm/day for more than 10 years).

The degree of bright liver was studied on 1) brightness, 2) liver/kidney contrast, 3) deep attenuation and 4) vascular blurring. Each of these markers was classified into three stages (0: no findings, 1: obvious findings and 2: remarkable findings), and the

total scores obtained on these four markers were regarded as fatty liver scores.

The results were obtained as follows; (1) among 137 cases, bright liver was noted in 38 cases, including 6 cases with certain trends of excessive alcohol drinking and 19 cases without history of alcohol drinking; (2) of the 6 subjects with bright liver and alcohol drinking history, 2 cases had fibrosis and 2 other cases had fatty infiltration, histologically; and (3) bright liver was noted in 6 of 24 cases with excessive alcohol drinking histories and liver cirrhosis was noted in 5 cases of the remainder 18 cases without bright liver pattern.

From these observations, it was suggested that ultrasonic examination may be helpful to differentiate between fatty liver and cirrhosis.

64

COLLECTING AND REPORTING ALCOHOL-RELATED MORBIDITY STATISTICS

Giesbrecht, G. Conroy & H. Fisher, Addiction Research Foundation, Toronto, Ontario, Canada.

The collection of morbidity statistics relating to alcohol is the first step in determining the extent of problems associated with its use. The International Classification of Diseases is the standard reference used in assigning codes to hospital records. However, each hospital is in charge of deciding how to code diseases of patients under their care, and this could be a source of error.

As a part of a larger study, the hospital staff in three Southern Ontario towns were canvassed about their methods in disease classification. These interviews revealed some variation in disease classification. The data gathered concerning alcohol-related disease are compared with average levels of alcoholic beverage sales over a five year period. These comparative data tend to support this conclusion.

Interpretations of the results focus on comparing ICD-generated statistics using other data, including beverage sales and survey results.

065

COMBINED USE OF ALCOHOL, COCAINE, AND MARIJUANA BEHAVIOURAL CONSEQUENCES AND TREATMENT ISSUES

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The number of patients entering treatment because of combined abuse of alcohol, cocaine, and marijuana is increasing rapidly. The behavioural consequences associated with this combination are often devastating and they reflect the additive pharmacological effects of these drugs, not idiosyncratic responses. While serious behavioural issues most frequently cause the patients to seek rehabilitation, at the same time there is poor insight and little internal motivation for treatment.

Ten consecutive patients admitted to a drug rehabilitation program with this pattern of drug abuse

and behaviour were studied by the authors. The case stories are presented to illustrate the alarming constellation of antisocial behavior and the treatment problems.

The behaviour results from disinhibition and central nervous system stimulation, while treatment is complicated by the patients' apathy.

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COMMENT CONCERNING METHODOLOGY OF ALCOHOL CHOICE EXPERIMENTS

-G. Tittmar & D. Stevenson, Department of Psychology, University of Ulster, Newtownabbey, Northern Ireland.

When conducting liquid selection tests, e.g., alcohol choice, it is normal to negate position preference, and it is also anticipated that liquid consumption, while not being steady from day to day, will at least be stable.

Consumption of water by ad lib. control animals was measured over a four week period, noting the daily consumption, as well as the daily non-consumed water. Plotting one against the other gave rise to a negative regression.

Consequently, the fuller the water bottle, the less liquid is consumed, and daily drinking rate is influenced by total volume of liquid in the bottle.

Thus, some of the daily variability in male rat liquid

consumption is due to procedural weakness, which may have been incorporated in previous choice selection experiments.

067

COMMUNICATING WITH ADOLESCENTS ABOUT ALCOHOL-RELATED TOPICS

M. Heffring & C. Paterson, The Heffring Research Group Ltd., Calgary, Alberta, Canada.

Although communicating with adolescents is not a new process, it is a difficult one. What is new is the discovery of communication techniques that appear to not only reach adolescents but to also have an effect on their attitudes and behaviour.

The Heffring Research Group has been working with AADA since the initiation of its first mass media campaign titled "Make The Most of a Good Thing; Make The Most of You". Throughout the past four years a number of interesting findings have come to fruition regarding communication with adolescents. The purpose of this paper is to give an overview of the following:

- which executional elements have been successful in gaining and holding adolescents' attention;
- which communications had the greatest relevance and believability for adolescents;
- which communications resulted in higher levels of involvement among adolescents;
- which communications resulted in more learning and attitude change;
- what types of communications don't work with

adolescents;
how do different types of adolescents (eg. age, sex)
respond to the communications; and
which trends affect communications with adolescents.

58

THE COMMUNITY/SOCIAL DETOXIFICATION PROGRAM

Henry, Calgary Alpha House, Calgary, Alberta,
Canada.

Alberta moves into a new phase in street level
alcoholism/drug abuse treatment with the development of
two new innovative programs in Calgary and Edmonton.
The Calgary Alpha House Society in Calgary and The
George Spady Centre Society in Edmonton are primary
responses to the needs of street alcoholics in the two
major centres.

Employing the concepts of shelter and protection
combined with a non-treatment detoxification unit, the
two programs attempt to provide a low cost, safe
alternative to medical detoxification and incarceration
of the public inebriant.

Another feature adding to the uniqueness of the program
is the community base of their governing boards. Both
centres, while funded through the Alberta Government's
commission dealing with alcoholism and drug abuse
(AADAC), retain community control of the program
through the appointment of board members from the local
community.

The paper focuses on the development and ongoing phases of operation of the two centres.

069

A COMPARISON OF PRESCRIPTION PSYCHOTROPIC DRUG USE BETWEEN THE GENERAL POPULATION AND CLIENTS OF HEALTH AND SOCIAL SERVICE AGENCIES

B. Rush, C. Timney & M. Simmonds, Addiction Research Foundation, University of Western Ontario, London Ontario, Canada.

There is considerable evidence that prescription psychotropic drugs are used widely among adults across Canada, the United States and many other countries. In the fall of 1982, a project was undertaken in the Regional Municipality of Durham in Ontario, Canada, to determine the nature and extent of psychotropic drug use in the region and to assess the need for treatment and prevention programs concerning this use.

This paper focuses on two components of the overall project: (1) a general population survey concerned primarily with the epidemiology of prescription psychotropic drug use, and (2) a study of drug use among clients in contact with health and social service agencies in the region.

The results from the general population survey confirmed those obtained in previous studies of this nature. There were, for example, higher rates of use among women, the elderly, persons of low income and low education, and the disabled. About 1.5% of the population

tion were long-term, daily users of minor tranquilizers.

In contrast, rates of drug use among agency clientele were approximately three to five times as high as reported in the general population. For most drug categories, age and sex differences were noticeably absent. About 4.7% of the agency population reported long-term daily use of minor tranquilizers.

The discussion focuses on the need for greater awareness of physicians regarding non-chemical alternatives to stress management. Physicians should also be more aware of community programs such as addiction assessment resources to assist in the management of patients with problems related to their psychotropic drug taking. The need for community health and social service agencies to screen for such problems is also discussed.

70

COMPARITIVE STUDY OF TWO METHODS OF DELIVERY OF THE TIME TO QUIT PROGRAM

J. Wilson, Registered Nurses' Association of Ontario,
Toronto, Ontario, Canada.

On a proportional basis, nurses smoke more than the average female population and, in fact, smoke as much as the adult male population.

Health care professionals are in a strategic position to influence public smoking habits by acting as exemplars, health educators and catalysts to control

smoking in health care settings. Nurses who smoke are less likely to engage in these activities.

This study compares two methods of delivering a smoking cessation program, Time to Quit, in health care institutions. An intensive delivery method was compared to mass media delivery. Three hospitals participated: one conducted an intensive, volunteer group oriented program; one received mass media exposure via CBC TV; and a control hospital had no access to the program. A difference was seen in the hospital exposed to the intensive program in the number of individuals making an effort to quit ($P=0.02$) and the number smoking less ($P=0.08$).

Separate analysis was done in the intensive delivery hospital comparing those enrolled and not enrolled in the group program. The difference in efforts to quit and smoking less reflected changes in the total hospital population, indicating the spillover effect from the group program to the entire hospital staff.

The Time to Quit program in a hospital setting is a cost-effective way to provide accessible smoking cessation programming. The impact on smoking is not restricted to participants in the group program. Mass sensitization may be one trigger to cessation attempts and provide motivation for nurses and others to attempt smoking cessation.

COMPREHENSIVE COMPUTERIZED SCHEME FOR THE EVALUATION AND DIAGNOSIS OF CHEMICAL DEPENDENCE DISORDERS

A. Edwards & W.E. Giguere, ToxiSearch, Inc., Redwood City, California, U.S.A.

The authors discuss the use of a comprehensive testing scheme for the diagnosis of both alcohol and drug dependence. Patients are chemically monitored for both drugs and alcohol while simultaneously being evaluated medically, psychiatrically, and psychosocially. A computerized system delivers data specific to each patient, and provides an individualized treatment plan based on the results.

COMPREHENSIVE STRATEGIES TO IDENTIFY DUI OFFENDERS

J. O'Shea, Alcohol and Drug Education Services (ADES) Central States Institute of Addiction, Chicago, Illinois, U.S.A.

An in-depth profile of the drinking driver (DUI offender) in Cook County, Illinois; an area of approximately 6,000 square miles including the City of Chicago with a population in excess of 5,500,000 of which over 3,300,000 are licensed drivers.

The purpose of the study has been to illustrate the diversity of the drinking/driver population in this geographic area, and to suggest that a targeted population can be unique to a given area, for a number

of reasons, including the social and legal pressures exerted on the segment of the population.

The result of diverse populations from various geographic areas when applied to the identification and "labeling" of DUI offenders, may be causing drinking driver to be misidentified in terms of legal, social, and health implications.

Strategies are suggested to standardize identification and profile of the drinking driver including the use of compatible instruments for data collection that would facilitate the identification process.

073

COMPULSIVE DRUG USE AT A CANADIAN UNIVERSITY: STUDENT ESTIMATES AND SELF-REPORTS.

B.K. Alexander, Simon Fraser University, Burnaby, British Columbia, Canada.

Two studies on compulsive drug use of university students are reported. In the first, 160 students were given a list of 8 drugs and asked to estimate the percentage of their fellow students that used each daily. Subsequently, the same students were asked many days in the previous month they had themselves used each substance. Estimates of use were much higher than mean reported use for all drugs except caffeine. For example, the mean estimated daily marijuana consumption was 28.7% whereas the percentage reported daily or almost daily use in the previous month was 2.1%.

second study, based on an individual interview technique derived from Jerome Jaffe's definition of dependence and addiction, confirmed the surprisingly frequency of daily use found in the first study.

s does not mean that compulsive drug use is not a problem among university students - it does suggest that its nature may be widely misunderstood. Of 107 students interviewed in the second study, 54% reported having been dependent or addicted to a drug at some time during their lives. About 31% reported current dependence and about 5% reported current addiction to one or more drugs. At all levels of compulsive drug use, the most common drugs by far were caffeine and nicotine, followed by cannabis and alcohol, in that order. Examination of individual cases revealed cause for serious concern among a small minority of students.

CONCENTRATIONS OF ZINC AND COPPER IN PREGNANT BLENDERS AND THEIR OFFSPRING

This study was supported by The Finnish Alcohol Research Foundation and The Research Department of Rinnekoti Foundation.

Halmesmäki (1) , G. Alfthan (2) & O. Ylikorkala ; (1) & (3) Department of Obstetrics and Gynecology, University of Helsinki, Finland; (2) National Public Health Institute, Helsinki, Finland.

The causative mechanism of fetal alcohol syndrome (FAS) is not known, but it can be a result of various nutritional deficiencies likely to develop in drinking

woman and her fetus. This deficiency may concern zinc and copper which function as essential cofactors for several metalloenzymes needed in fetal growth development. Therefore we followed prospectively serum concentrations of zinc and copper, as assessed by atomic absorption, in 31 pregnant women out of whom 10 drank heavily (140g of pure ethanol/week) and 21 moderately (42-126g of pure ethanol/week).

There was no difference in maternal zinc and copper concentrations between the drinkers and nondrinker control women (n=10) at any stage of gestation. Maternal prepartal levels of zinc and copper were relative to the respective levels in umbilical serum ($r=0.941$; $p=0.025$ for zinc, $r=0.387$; $p=0.05$ for copper).

The concentration of zinc in umbilical serum in infants born to the drinkers ($16.6 \pm 2.2 \mu\text{mol/l}$, mean $\pm$ SD) was lower ($p=0.05$) than that in the controls ($22.0 \pm 6.6 \mu\text{mol/l}$), but no difference was seen in copper in this regard.

Ten infants with FAS (32%) were born. These cases were characterized with no consistent abnormalities in maternal and/or fetal levels of zinc and copper.

Thus, placental transport of zinc can be reduced in drinkers, but this may not have any role in development of FAS.

CONDITIONS OF LEGAL DRUG USE, RESULTS AND PROBLEMS OF A POLULATION-SURVEY

Ellinger & W. Karmaus, Projekt: Frauen, Medikamente,
vention. Universitäts-Krankenhaus Eppendorf,
izinische Soziologie, Hamburg, Federal Republic of
many.

aim of our research is to identify risk factors for
use of psychoactive drugs in the working and living
uation. Prevention strategies have to apply here.
theoretical framework of our investigation is a
cept of demands and coping.

suppose two kinds of demands to cause medical drug
: (1) restrictiveness (high pressures and low
itudes at work), and (2) emotional demands occuring
occupational social work as well as in house and
aily work ("burn out"). The use of legal drugs is
strategy to cope with strain, conflicts and health
plaints resulting from these conditions. To take
ls is near at hand when, e.g., scope of time, is
. Another dimension of interest is social support
ch is assumed to be of protective influence.
ertheless, we suspect that social support also
icates duties and stress especially for women. We
ecked these hypotheses in survey data which were
lected in FRG in 1981.

together 2000 persons were asked about health
plaints, working and living situation, use of
ical drugs, tobacco and alcohol. We were interested
three groups: housewives, employed women and
loyed men. The results of multivariate analyses
firm the assumptions in part. There are associa-

tions between medical drug use and (a) latitude at work (employed women), and (b) social support (men). The situation of these two groups of employees is obviously so homogeneous and impressive that the associations are significant. That does not hold for the housewives. In this group, contradictory cluster-specific relationships are existing which refer to the following methodological and theoretical problems: (1) multiple outcome (alcohol and legal drug use), (2) the kind of association is curvilinear (overload/underload), (3) perception changed due to drug use, and (4) reality changed as a consequence of drug use (drift hypothesis).

076

THE CONSEQUENCES OF CHANGING SMOKING HABITS ON CANCER MORTALITIES IN 1990, 2000 AND 2010

H. Mantel, W.F. Forbes, M.E. Thompson & R.W. Gibber
WHO Collaboration Centre for Reference on
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University of Waterloo, Waterloo, Ontario, Canada.

Future mortality rates are predicted on the basis of three scenarios. The first is that the age-sex tobacco consumption per person remains at 1981-85 levels, second scenario is that tobacco consumption will decrease 10% per quinquennium until stabilizing at a level above the 1981-85 levels, and the third scenario is that age-sex tobacco consumption per person will increase 10% per quinquennium until stabilizing at a level above the 1981-85 levels. These predictions make use of a model which relates cigarette consumption and cancer mortality and involve a number of assumptions.

In other projections of this type, combining the model and the model misspecification components of the errors, it is estimated that the magnitude of errors of projects will not exceed 40%.

The model predicts that female lung cancer mortality rates will rise at least until the beginning of the 21st century, even with a declining consumption of cigarettes, whereas the corresponding male rates tend to decline. This is because of the long latent period for lung cancer and the relatively short time, compared to males, during which women have been smoking. It also shows that for some cancers, even where there is a known cause, mortality rates cannot readily be reduced. This is in contrast to heart disease, which appears to have a relatively short latent period. It follows from this, incidentally, that the overall effect of decreasing or increasing smoking, can be expected to be a much greater effect than is evident from the data for lung cancer. The results may be of value in emphasizing the importance of cigarette smoking in determining the number of lung cancer deaths and the corresponding lung cancer rates and may thus be useful in public policy programs and as a means of encouraging individual smokers to reduce their cigarette consumption.

CONSUMMATION DE DROGUES PAR LES ETUDIANTS DA L'UNIVERSITE COMPLUTENSE DE MADRID

M. López, J.C. López, P. Lorenzo, A. González, D. Cruz & J.V. Beneit, Departamento de Farmacologia de Universidad Complutense de Madrid, Madrid, Spain.

Afin de connaître la consommation des différent drogues existant dans l'Université Complutense Madrid, on a appliqué un sondage statistique à 68 étudiants d'un grappes stratifié.

L'estimation des résultats montre que le nombre d'étudiants qu'admetant avoir eu des rapports avec quelques unes des drogues, exception faite de l'alcool a été de 30682 sur un total de 68222, c'est-à-dire, 45%, et son intervalle de confiance 95% ($27818 < X < 33546$), c'est-à-dire, $41\% < P < 49\%$.

Les principales drogues qui font l'objet de consommation ainsi que leurs estimation sont indiqués dans le tableau suivant:

Derivee "Cannabis" (D.C.)	24,089
Cocaine (C)	837
L.S.D.	127
Heroïne (H)	100
D.C. et C.	2,668
D.C. et L.S.D.	1,511
D.C. et H.	554
Politoxicomanies	796

Total	30,682

âge de l'initiation à la consommation a été de 16
20 ans pour pourcentage élevé.

present, 14309 étudiants admettent qu'ils consomment
s drogues sur le dit total.

8

NSOMMATION DE TABAC ET D'ALCOOL, EXISTENCE DE DEUX PES DE CONSOMMATION, LIAISON ENTRE CES CONSOMMATIONS

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) Institut National de la Statistique et des Etudes
conomiques, Paris, France.

calcule pour chaque "département" français la
portion des décès par alcoolisme par rapport à
ensemble des décès, variable supposée
proportionnelle à la consommation d'alcool par
bitant. Ces données sont calculées par sexe, pour le
pupe d'âge: 45-64 ans; elles sont corrigées pour
hir compte des erreurs de mesure. On dispose
alement des consommations de tabac par habitant pour
aque département français.

constate que la distribution de chacune de ces
riables est la somme de deux lois log-normales. On
déduit que la population générale se décompose en
ux populations P1 P2 pour chacune desquelles la
istribution de la consommation d'alcool suit cette loi
qu'il en est même pour la consommation de tabac.
appelle P2 la population de consommation moyenne la
us élevée.

On suppose que la population P1 a une consommation de type exogène due à des circonstances extérieures, à l'environnement, au milieu, et que celle de P2 est d'origine endogène liée aux caractères génétiques de l'individu.

On étudie ensuite la consommation moyenne de tabac en fonction de la consommation moyenne d'alcool par habitant, pour les 95 départements français. On constate qu'il n'y a pas de liaison pour la population générale mais qu'il en existe une pour la population de type P1 ou de type P2. Pour la population P2, par exemple, la consommation de tabac passe par un maximum quand la consommation d'alcool augmente.

079

LES CONSULTATIONS POUR LES JEUNES DANS UN CABINET DE PRATICIEN: BILAN APRES 4 ANNEES DE FONCTIONNEMENT

J. Parvulesco, Praticien FMH en Médecine Générale, Monthey, Suisse.

La fréquence et la nature exacte de la morbidité chez les adolescents demeure insuffisamment précisée.

Pour répondre aux besoins de santé de ces jeunes, nous avons organisé dans notre ville une consultation spéciale pour les adolescents entre 12 et 19 ans.

La crise d'adolescence, qui existe comme un reflet des nécessités développementales, est dans la majorité des cas une crise intérieure qui s'accompagne de souffrances diverses, de moments d'angoisse et de dépression.

Nous avons rencontré une problématique très complexe, systématisée dans deux groupes: problèmes d'ordre physique et problèmes d'ordre psychologique.

Notre consultation offre aux jeunes une possibilité d'aborder, avec un médecin sans étiquette psychiatrique, leur environnement habituel, dans une période délicate de leur existence (l'adolescence).

080

CONTAMINERS OF CLANDESTINE ALCOHOLIC BEVERAGES

A.N. Agudelo, J. Bolanos, A.M. Pon & J. Almendares, Universidad Nacional Autónoma de Honduras, Honduras.

Clandestine alcoholic beverages constitute a prevalent problem in some underdeveloped countries. Preliminary observations suggested the possibility of a greater toxicity of these clandestine beverages with respect to those with official recognition.

Chemical and acute experimental toxicity studies were made.

The chemical studies of the clandestine beverages showed contamination of heavy metals such as copper in a concentration of 1.31 ppm, lead at 0.71 ppm, zinc at 0.24 ppm, aluminum at 1.0 ppm and cadmium at less than 0.01. Other secondary elements were found - such as acetaldehyde which was present in a concentration of 8.82 mg per 100 in the sample. This is over the maximum limit allowed by international laws for quality control of hard liquor and others such as ethyl

acetate, superior alcohols and methanol within the approved standards.

The studies of acute toxicity with mice of the Cep Bal/C and with intraperitoneal dosifications showed that the DL50 for these beverages was 5.2 g/kg of weight, compared to those of the DL50 of absolute ethanol that was 6.0 g/kg of weight.

These observations lead to the planning of epidemiological studies on heavy metals, present in the beverages as in the biological liquids of the communities that consume clandestine beverages, and to make studies of chronic intoxication in experimental animals.

081

A CONTEXTUAL-SYSTEMIC ASSESSMENT TOOL FOR ALCOHOLIC COUPLES AND FAMILIES

S. Tettersington, Alberta Alcohol and Drug Abuse Commission, Calgary, Alberta, Canada.

Traditional assessment of alcoholic behaviour is basically individual focused, especially in terms of frequency, location and resulting problematic outcome. The field has not pursued the idea of alcohol behaviour in the context of significant personally linked relationships except as an afterthought of outcome of individual irresponsibility. Alcoholic behaviour has not been seen in a human relational context.

What is proposed is that alcoholic behaviour be seen within the context of interpersonal relationships.

generally, and within certain contexts specifically. Key elements of the contextual-systemic tool are designed to give a comprehensive assessment of alcoholic behaviour across a variety of contexts including referring context, legal, social, interpersonal/relational, educational, historical and current contexts of the problem. Additionally, the communicational nature of the behaviour in relational context is examined. This tool provides a broader and deeper understanding of the problem which can increase therapeutic options.

In this presentation the assessment format will be examined in detail.

82

CORRELATIONS BETWEEN BIOLOGICAL MARKERS AND ALCOHOL INTAKE MEASURED BY DIARY AND QUESTIONNAIRE

Poikolainen (1), P. Kärkkäinen (2) & J. Karkainen (3); (1) Department of Public Health Science, University of Helsinki, Finland; (2) Töölö Alcoholism Treatment Unit, Helsinki, Finland; (3) National Public Health Institute, Helsinki, Finland.

Alcohol intake was measured in 54 volunteer males, aged 20-45 years, first by a questionnaire and then more thoroughly by a diary. Blood was drawn for the measurement of markers, after the completion of the questionnaire and at the end of the two consecutive diary periods. Partial correlations, controlling for smoking, exercise and age, between daily alcohol intake and markers were low and improved only a little when diary data were analyzed instead of questionnaire data.

No improvements were found when average alcohol intake over time was substituted by average intake per drinking day or by maximum intake per any given drinking day. Significant associations were found for mean cell volume (MCV), serum high-density lipoprotein cholesterol concentration (HDL), and alkaline phosphatase (AFOS), but none for gamma-glutamyl transferase (GGT), HDL/cholesterol ratio or ferritin.

Correlations between actual alcohol intake reported by diary and intake predicted by a multivariate model with MCV, HDL, AFOS, and GGT as regressors were significant ($p < 0.05$) but low ($r = 0.30-0.31$). Low correlations seem to result from suggested markers being poor indicators of alcohol intake rather than from inaccuracies in the measurement of alcohol intake.

083

CORRELATIONS DEPRESSION - ALCOOLISME

R. Macrea & O. Moldovan, I.M.F., Cluj-Napoca, Romania.

Afin d'explorer la relation dépression-alcoolisme, les auteurs présentent les résultats d'une étude sur la fréquence, persistance et le caractère des symptômes dépressifs, étude effectuée sur un lot de 36 patients (30 hommes et 6 femmes) hospitalisés pour alcoolisme.

Les critères pour le diagnostic d'alcoolisme correspondent aux définitions OMS et les critères pour la dépression sont ceux du DSM III. L'évaluation de l'intensité des symptômes dépressifs a utilisé l'Echelle Hamilton pour les dépressions. Les scores SDH présentent une moyenne de 21.5 chez les femmes et

19.6 chez les hommes, indiquant la présence de la dépression chez 22 patients (pendant que l'examen clinique indique seulement 13 patients dépressifs).

du point de vue du diagnostic la différenciation entre la dépression primaire et la dépression secondaire n'est pas facile. Dans notre étude la majorité des symptômes psychiques accusés par les patients tiennent de la dépression et de l'anxiété. Ceux d'ordre somatique impliquent le système musculaire, l'appareil gastro-intestinal et cardio-vasculaire. Les symptômes psychiques paraissent ou s'intensifient pendant la désintoxication, pendant la phase qui suit immédiatement la désintoxication et pendant les périodes de stress. La fréquence accrue des tentatives de suicide (5 cas dans notre lot de 36 patients) indique la gravité du problème pour les patients alcooliques. Les implications pratiques de la présente étude sont discutées dans les termes du diagnostic différentiel et de l'attitude thérapeutique.

84

REACTIVE WRITING THERAPY USED TO ASSIST CHEMICALLY DEPENDENT ADOLESCENTS EXPRESS FEELINGS

J. McDonald, Olympic Counselling Services; Lakewood General Hospital; Western State Hospital; Tacoma, Washington, U.S.A.

Chemical dependency is characterized by an inability to adequately express feelings. Chemically dependent adolescents display voids in their emotional make-up due to their inability to touch bases with their feelings.

Consuming chemicals to relieve emotional and social stress, these youths isolate themselves from their inner feelings by blocking their emotions with chemicals. As a result, the youths gravitate further from their emotional center and consequently lose touch with themselves. Feelings become alien intrusions.

This paper uses the five senses to assist the chemically dependent youth in locating his or her feelings. In associating an emotion, feeling, or state of being with a sense, the youths are able to begin expressing their feelings without becoming defensive, confused and/or threatened.

"When I lose control, what sound am I ?"

"What texture am I when I am happy ?"

"What color am I when I am strong ?"

These questions are examples of the questions used with chemically dependent youths.

This paper hopes to enable chemically dependent youths to express their feelings in less defensive, confusing, and threatening environments. This paper also hopes to encourage broader modes of expression by enabling chemically dependent adolescents to write (or verbalize) feelings associated with tangibles, such as the five senses.

ITERES D'UTILISATION DES PSYCHOTROPEs DANS L'ABORD ERAPEUTIQUE DES ALCOOLISMES

Benichou, Clinique du Château de Prévillè et Centre
spitalier Général, Orthez, France.

on envisage l'alcoolisme comme un phénomène
opsychosocial (EWING), les médicaments psychotropes
peuvent constituer qu'un maillon isolé d'une chaîne
érapeutique qui en contient beaucoup d'autres.

double écueil dans l'utilisation des médicaments est
nstitué par la "tentation du traitement symptoma-
que" ou purement comportemental et par l'utilisation
certains produits à partir d'hypothèses
thogéniques qui ne sont pas universelles pour tous
s alcooliques (il existe des malades mentaux
alcoolisés" (FERNANDEZ) mais tous les alcooliques ne
uvent être abordés sous cet angle).

prise en charge médicale dans un établissement de
ns doit préciser les diagnostics avec le plus de
hesse possible et doit éviter les interférences
érapeutiques hasardeuses voire dangereuses.

temps du sevrage, temps médicale, doit
radoxalement être avare de médicaments, mais on peut
liser des psychotropes non substitutifs de l'alcool
sans risque de dépendance ultérieure (dans la mesure
les alcooliques utilisent instinctivement des
thèses psychotropiques et ou leur appétence
icamementeuse est un phénomène connu).

molécule psychotrope: le TIAPRIDE: benzamide
stitué répond à ces critères de précaution et peut

constituer une aide médicamenteuse efficace sans risque de dépendance.

Les psychotropes utilisés chez les alcooliques doivent en effet permettre à un projet socio-psychothérapique de se développer, à de nouveaux apprentissages de s'établir sans être gênés par une médication psychotrope aux effets secondaires.

086

A CRITICAL LOOK AT CHILDREN OF ALCOHOLICS FROM A CHILD DEVELOPMENT PERSPECTIVE

R. Yip, Alberta Alcohol and Drug Abuse Commission
Calgary, Alberta, Canada.

The issue of children of alcoholics has always been a topic of interest to addiction workers. In the last two years, we have witnessed an upsurge of interest in exploring the issue at greater depth. Although a lot of literature and research are able to provide a good description of how family alcoholism can have a devastating impact on these children's emotional being, there is little literature that attempts to thoroughly examine the issue of children of alcoholics from a child development perspective.

This paper will specifically discuss how the normal development issues of young children (aged 5-12) of alcoholics can be severely impaired by family alcoholism. As a result, they are not well equipped emotionally and cognitively to deal with stress at home and

their lives. The paper will also challenge the popular concept of "negative" role adjustment by children of alcoholics.

Any programming for young children of alcoholics should consider the child's special development needs. This paper will provide some insight for helping professionals who are interested in working with these children. It will also discuss some current student assistance programs in the Alberta School System that aim at helping children of alcoholics.

7

DATA-MODEL FOR THE TREATMENT OF ALCOHOL AND DRUG ADDICTS

Hoekstra, Federation of Alcohol and Drug Centres, Mithoven, The Netherlands.

In the Netherlands there are more than two hundred centres for the care and cure of addicts. There is not yet a systematic data-collection of their work and patients. A national information system will be started in 1986.

Computerization is an important trend in society. Many centres obtain management information systems. There are regional and national systems in preparation for social welfare, mental health care and other related fields. How shall we get comparable information from these different systems?

Good data will not be as scarce as it is now. The problem will be how we shall use the overwhelming amount of data from different sources for epidem-

iology, policy about alcohol and drugs, management, monitoring and program-evaluation, outcome and follow-up studies, and so on.

Nowadays it is technically not difficult to build up a national information system. The problems are social and scientific. The standardization of definitions and classifications is very important. The paper will present a data-model and data-catalogue made up to stimulate this standardization. Backgrounds, possibilities and experiences will be discussed.

088

A DAY PROGRAM

P. McGoey & C. Suchit, Alberta Alcohol and Drug Abuse Commission, West End Centre, Edmonton, Alberta, Canada

The demand for treatment for individuals with chemical dependency problems with referrals from employers, family members, community resources, etc. has influenced the West End Centre to implement an intensive two week out-patient program.

This two-week program enables individuals to remain in their own environment while obtaining treatment. A significant aspect of the program is a short waiting period - a new program begins each week. It has both a didactic and experiential approach thus allowing clients to acquire knowledge of the addiction process as well as provide them the opportunity to examine their daily living.

before becoming involved in the actual treatment, clients spend a day of orientation which allows them the opportunity to clearly understand the required involvement and commitment. The program also includes leisure counselling, individual and family counselling, recreation, relaxation exercises, nutrition, as well as follow-up program.

The program meets the needs of the individual faced with a crisis situation with early involvement in treatment which is significantly important to employers and employees as well as individuals with family responsibilities.

The paper presents observations regarding the Centre's change from a four-week open-ended program to a two-week intensive closed program. Supporting the change in program format are results of an evaluation study conducted in May, 1984. Details of selection criteria, lecture content, group referral sources, etc. are also presented.

89

MAND REDUCTION - NATIONAL INITIATIVES. THE STATE OF THE ART IN AUSTRALIA.

J. Carvolth, Alcohol and Drug Dependence Services, Queensland Department of Health, Brisbane, Australia.

An outline is provided of new initiatives at the national level in Australia in prevention through research, and community education and development. The field has been enriched by policy deliberations and

planning focusing on a National Drug Summit called by the Prime Minister in April, 1985.

Specific programs highlighted include the planned National Institute of Studies on Drugs and Alcohol, the formation of a new foundation through partnership between Lions Clubs International and the Alcohol and Drug Foundation, Australia, the Foundation's Community Approach to Drug Abuse Prevention Project, the expanded National Drug Education Program and the co-operative Patron Care Program between health and liquor bodies which embraces server intervention training and promotion of healthy models for those who choose to drink alcohol.

090

DEMOGRAPHIC PROFILE OF SUBSTANCE USE DISORDER PATIENTS SEEKING HELP IN A PROVINCIAL PSYCHIATRIC HOSPITAL BASED REHABILITATION PROGRAM

B.N. Sinha & Z.S. Faulds, Alberta Hospital Ponoka
Ponoka, Alberta, Canada.

Help for substance use disorder is available almost everywhere. The range of substance use disorder goes from excessive eating to addiction to caffeine, nicotine to alcohol and other drugs of recreation. In this paper the profile of those who seek help at Alberta Hospital Ponoka (AHP) for alcohol dependence and poly-substance use disorder is discussed in relation to the demographic variables, other psychiatric diagnosis and prevalence in family members (parents, grandparents, siblings and other immediate relatives).

ossible relationship of these variables to the nature of the problems of these patients along with the nature of the rehabilitation program are discussed.

heoretical explanations, i.e., psycho-social and genetic-behavioural, are discussed and a possible familial model" is proposed.

he paper also gives some suggestions for further research into explaining the phenomenon of substance use disorders in terms of establishing biological markers and longitudinal research.

91

DESCRIPTIVE PROFILE OF A SAMPLE OF CHEMICALLY DEPENDENT NURSES IN SAN FRANCISCO, CALIFORNIA

J. Jessup & M. Buxton, Bay Area Task Force for Impaired Nurses, San Francisco, California, U.S.A.

Recent findings on the incidence of substance abuse related nurse deaths in San Francisco County in a study conducted by the Bay Area Task Force for Impaired Nurses will be presented. Statistics are from the San Francisco County Coroner's Office and findings from a sample of 38 nurses in recovery and issues in treatment.

Additionally, clinical descriptors of the nurse with addictive disease will be discussed, legal counselling and return to work issues will be described, and recommendations for nurse advocacy services made.

DESIGNER DRUGS: TIP OF THE ICEBERG?

G.V. Rand, R. Schramm & R. F. Shaw, Behavior Research Inc., San Diego, California, U.S.A.

By slightly altering the molecular structure of commonly abused substances, underground chemists are creating new legal - and often lethal - substitutes for heroin and other drugs. Synthetic "China White" was first introduced to the addict subculture in California in 1979; it has killed at least 65 heroin users to date - 20 in San Diego County alone. Chemically "China White" consists of one or more fentanyl analogs (e.g. alpha-methyl fentanyl; 3-methyl fentanyl). Urinalysis data from methadone programs indicates that there may be as many as 20,000 regular fentanyl users in California alone. Considering that a \$50 laboratory can produce \$2,000,000 in product, that only two or three of perhaps hundreds of analogs have been produced, and that so far these may have all come from one or two labs, future prospects may be dim.

Aside from the opioids, designer drugs possibilities exist in other areas: Cocaine - Cocaine was first synthesized in 1923 with the skeleton of citric acid as a starting point. Today's advanced database and techniques may give us a cheap, easy path to levorotatory cocaine synthesis - or perhaps to an analog a few hundred times more potent. Amphetamines - The recent increased interest in illicit amphetamine has not yet produced designer "speed" (analog) but rather more innovative synthesis techniques to produce standard amphetamine/methamphetamine. Most amphetamine analogs, it seems, are the designer drugs of the psychedelic world with hundreds of variations

tensity and duration. Combinations - Common drugs in
vel combinations to produce unique effects: "T's and
ues", "doors and fours", and more.

plications and future directions are discussed.

3

DETOXIFICATION AND REHABILITATION PROGRAM FOR ALCOHOL AND OTHER DRUG ABUSERS

Falkner & A. Ward, Renfrew Recovery Centre, Calgary,
berta, Canada.

nce 1974, The Alberta Alcohol and Drug Abuse Commis-
on has operated a detoxification unit called Renfrew
covery Centre located in Calgary, Alberta.

is a forty bed unit, providing twenty-four hour care
r men or women who require assistance in
toxification from alcohol and other drugs.

information, referral program of approximately five
ys is offered to the client, once he or she is well.

gistered nurses are on duty twenty-four hours a day,
ven days a week, supported by aides on all shifts.
unselling services are available seven days per week.

detoxification, we talk with the family and give
formation that can support the person being
toxified and the family.

Nurses also contact family doctors and family doctors become part of the support system in detoxification and follow-up.

The groups at the detoxification centre meet three times daily, seven days a week, to motivate patients or support motivation of the patient to follow up treatment.

Renfrew Recovery Centre operates a crisis line twenty-four hours a day. Renfrew also has a Saturday and Sunday program for people who are employed and can't take time off from their employment.

094

DEVELOPING SMOKING PREVENTION MATERIALS: A PSYCHO SOCIAL APPROACH

E.M. Gray & P. Gaimage, HEC SET Project, School of Education, University of Bristol, Bristol, England.

With an estimated 100,000 people dying prematurely every year in Britain from the effects of smoking, its prevalence among young people continues to be a cause for concern.

Traditionally, smoking prevention has tended to emphasize teaching the facts about the long-term health risks of smoking but research during the last decade has suggested that other approaches can significantly reduce the number of regular adolescent smokers.

An American guide to five lessons on smoking has been adapted and developed for use in a British context.

is guide adopts a psychosocial approach to smoking and emphasizes teaching adolescents how to recognize and resist social pressures to smoke.

provide base-line data and background information for the British version of the guide, a study of smoking prevalence among 10,579 children in an urban area of Britain was undertaken. Figures showing a sharp increase in regular smoking habits between the ages of 13-14 suggested an earlier age than this for the introduction of intervention material.

The strategies employed in the adaptation of the American guide are described and the early stages of the evaluation of the British pilot version of the guide are discussed.

5

DIAGNOSTIC VALUE OF THE SMAST (SHORT MICHIGAN ALCOHOL SCREENING TEST) AND THE CAGE QUESTIONNAIRE WITH HOSPITALIZED ALCOHOLICS AND DRUNK DRIVERS

R. Macklin (1) & A.E. Warren (2); (1) University Hospitals of Cleveland, Cleveland, Ohio, U.S.A.; (2) Ashtabula County Medical Center, Ashtabula, Ohio, U.S.A.

Among the most widely used screening tests for alcoholism are the CAGE and SMAST. Numerous studies have validated these tests in a number of different populations. Insufficient attention has been paid, however, to the extent to which setting and attitudes influence scores on these tests.

The CAGE and SMAST questionnaires were given to 50 consecutive admissions to an alcohol treatment hospital and to 50 persons undergoing a mandatory 2 day alcoholism course following an arrest for driving under the influence of alcohol. There were no significant differences between the groups in terms of age, years driving, or the number of DWI arrests; but the DWI group was significantly better educated.

On both the CAGE and SMAST the DWI group scored significantly lower. Using criteria of CAGE greater than 2, only 9 of the DWI group, but 47 of the treatment group were alcoholic. Using criteria of CAGE 2 or greater or SMAST 10 or greater, 14 of the DWI group, but 47 of the treatment group were alcoholic.

Previous researchers have found that 54-83% of those arrested for DWI are alcoholics. Possible reasons for the discrepancy in scores in this study are noted. Caution is necessary in interpreting the results of brief screening tests for alcoholism, particularly in the setting is likely to increase the already prevalent denial pattern in the alcoholic population.

096

DIAZEPAM IMPAIRS LONG-TERM MEMORY STORAGE AND RETRIEVAL, BUT NOT SHORT-TERM MEMORY

R.B. Coombs, C.X. Poulos & H.D. Cappell, Addictive Research Foundation, Toronto, Ontario, Canada; and Psychology Department, University of Toronto, Toronto, Ontario, Canada.

This research investigated the processes which underlie diazepam-caused memory deficits. Two issues in the

regard are what mechanisms produce previously observed long-term memory (LTM) impairments, and whether the drug impairs short-term memory (STM).

Diazepam has been shown to impair LTM but the distinction between storage and retrieval deficits is incompletely understood. This experiment used two dependent variables to study storage and retrieval in the immediate recall of categorized word lists. In such lists, the number of items recalled within a particular category mainly measures storage, whereas the number of categories recalled mainly measures retrieval. The recall test was given (1) 45 minutes after 15mg diazepam administration and (2) 4 hr 45 minutes after drug administration. In test (1), diazepam caused a significant reduction in both number of categories recalled and number of items recalled per category. In test (2), number of categories recalled was not significantly impaired, but number of items per category was significantly impaired. Thus, diazepam impairs both storage and retrieval, but the retrieval impairment does not persist for as long as the storage impairment during an acute intoxication period.

Diazepam did not cause significant impairment of either the two STM measures used. The memory deficits produced by the drug may be obscured because diagnostic interviews evoke STM processes more than LTM storage processes.

DIETARY FACTORS AND ALCOHOLIC CIRRHOSIS

A.A. Nanji & S.W. French, Department of Pathology, University of Ottawa and Ottawa General Hospital, Ottawa, Ontario, Canada.

In many countries, mortality from cirrhosis deviates markedly from that expected for a given per capita alcohol intake. Also not all alcoholics develop cirrhosis. Thus other factors such as diet and type of drinking behaviour have to be considered.

We investigated the possibility that differences in dietary habits might explain the deviation from expected rates for cirrhosis in different countries. Previously published data for per capita intake of cholesterol, saturated fat and polyunsaturated fat was obtained for 17 countries all of which have a hepatitis B virus carrier rate of 2%. Deviations from expected mortality from cirrhosis for each country correlated significantly with dietary cholesterol ($r = -0.86$, $p < 0.001$), saturated fat ($r = -0.08$, $p < 0.001$) and polyunsaturated fat ($r = 0.55$, $p < 0.05$).

The above relationships indicate that diets high in cholesterol and saturated fat protect against the development of alcoholic cirrhosis whereas polyunsaturated fats promote cirrhosis. Our observations are in keeping with experimental findings regarding the pathogenesis of cirrhosis. These include the role of polyunsaturated fatty acids in lipid peroxidation and the role of cholesterol making the cell membrane relatively resistant to the membrane effects of alcohol.

DISULFIRAM: ABSENCE OF HEPATOTOXICITY IN LONG-TERM USE AND HIGH DOSAGE IN PATIENTS WITH ALCOHOLIC LIVER DAMAGE

J. Brewer, Community Alcoholism Treatment Services, Westminster Hospital, London, England.

Liver function tests were done on 43 alcoholic patients taking disulfiram under reliable supervision in doses ranging from 200mg to 1g daily for periods ranging from 1 month to 27 months. No evidence of significant hepatotoxicity was seen, even in patients with evidence of liver disease, including cirrhosis. These findings add to the evidence that disulfiram hepatotoxicity is a rare and idiosyncratic event. The presence of liver disease should not deter clinicians from prescribing disulfiram if drinking continues or looks likely to continue despite other treatment.

DOPAMINE AND OPIATE SYSTEM'S PECULIARITIES AS A BASIS FOR DEVELOPMENT OF ALCOHOL DEPENDENCE: ROLE OF GENETIC FACTORS

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The existence of genetic factors which determine the individual alcohol behaviour, development and severity of alcoholism has become obvious. The investigation of biological basis of these factors is very important for prophylaxis and treatment of alcoholism.

According to our considerations, the characteristic alterations in dopamine (DA) systems which are connected with the changes in modulating influence of opiate systems are of great importance in the pathogenesis of alcoholism. In connection with those conceptions, in rats with different alcohol behaviour and in offspring of these rats, the DA turnover, the activities of enzymes of DA synthesis and degradation, the cyclic nucleotides levels and functional characteristics of DA and opiate receptors were investigated.

The studies revealed considerable peculiarities in organization and functions of DA and opiate systems in alcohol preferring rats as well as in offspring of animals with alcohol dependence. Such peculiarities are probably the substantial basis for individual alcohol behaviour.

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THE DRINKER'S CHECK-UP: A PREVENTIVE INTERVENTION METHOD

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Although in later stages alcohol abuse is easily diagnosed, the hope for prevention lies in early detection of emerging alcohol-related problems. Working from a health promotion model, the Drinker's Check-Up (DCU) is offered to individual drinkers as a means for discovering what negative effects (if any) alcohol is having in their lives. As we have offered

, the DCU is dissociated from any "treatment", and emphasizes alcohol-related impairment rather than the label "alcoholic".

The complete DCU requires two visits: one 2-hour check-up, and a second session to provide feedback of findings. The underlying premise is that feedback of personal status will have greater impact upon drinking behaviour than will general warnings about alcohol's detrimental effects.

The tests included in the DCU were selected for their ability to detect some of the earliest manifestations of alcohol-related impairment. They include: (1) portions of the Comprehensive Drinker Profile (Marlatt Miller, 1984) to determine drinking pattern, problems, family risk, and dependence symptoms; (2) serum assays of SGOT, GGTP, and HDL; (3) eight neuropsychological tests sensitive to alcohol's effects on the brain; (4) collateral interviews, and (5) the Alcohol Use Inventory (Horn et al., 1974).

Research and clinical applications, as well as initial findings on the impact of the DCU on drinking behaviour will be presented. One unexpected finding, which merits further exploration, was the identification of a number of individuals with prolonged levels of heavy drinking but little or no detectable impairment. The DCU, in addition to serving as a screening and motivational tool, may prove a useful vehicle for exploring vulnerability and sensitivity to alcohol-related impairment.

DRINKING BEHAVIOUR OF THE ELDERLY

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By a survey, the drinking behaviour of the elder people was explored. Four different populations were addressed: Students of the Dortmund Third Age University, Visitors of Senior Citizen Clubs in Dortmund, Visitors of Senior Citizen Clubs in Frankfurt, which are assisted by the Volkshochschule and pensioners paid by the State of Northrhine Westphalia.

The results show that the behaviour of the German Population does not differ in any essential way from that of the U.S. elder people. The level of danger of alcoholism, in spite of some lowering in the level of incidence, rests at an attention requiring level, at least up to the age of 80 plus. No typically age linked dangers caused by stresses appearing with age have been found. The concrete causes of alcoholism with the elderly people are not as evident as with alcoholics in general. Care must be taken to assure sufficient therapeutic offer for elderly alcoholics. more specifically, age may be no reason for exclusion from therapy. The loss of some tolerance with increasing age (75+) tends to reduce alcohol consumption, even with alcoholics.

DRINKING HABITS IN STUDENTS OF TWO DIFFERENT ITALIAN REGIONS

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In order to clarify some factors involved in the development of alcohol abuse, the drinking habits of 2283 students aged between 14 and 19, from two different Italian regions, were investigated. In areas with a high prevalence of alcohol-related disease (e., liver cirrhosis) and a high alcohol production, a surprisingly high proportion of students habitually drink an excessive amount of alcohol (33%).

relationships between the age of initiation of drinking and drinking habits were found. A strong correlation was found between the drinking habits of the youngsters and their parents. The close correlation which was observed between alcohol drinking and cigarette smoking underlines the relationship between different addictions, especially in adolescents.

DRINKING PATTERNS AND SUICIDAL BEHAVIOUR IN A COMMUNITY MENTAL HEALTH SAMPLE

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The methodology, background and initial results from a sample of 679 adults randomly selected from the population of Calgary, a large city in Western Canada are described. Data collected include responses to standardized measures of current and past mental health, and measures of suicidal feelings, attitude and behaviour, as well as measures of drinking behaviour. Some four percent of this population report a drinking problem in the past year, while 40 percent report being drunk at least once in the previous year. Feeling miserable when drunk was significantly associated with the expression of suicidal ideas and reports of past suicidal behaviour. These findings are linked to a parallel study of 200 suicides in the city which describes the prevalent history of excessive drinking in the lives of people who kill themselves and the use of alcohol surrounding the act of suicide.

DRINKING PATTERNS OF FIRST-YEAR MEDICAL STUDENTS

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The range of differences in alcohol use and the psychosocial profile of students by 3 drinking levels

were examined in one first-year medical school class. A total of 116 students (96% of the class) completed questionnaires about their drinking and their background, family, personality, mood, academic performance, and social network at school orientation in September, then 106 (88%) completed them again in April, seven months later. Quantity-frequency and self-label ratings of alcohol use were employed to define a norm-referenced categorical scale for each timepoint.

The median consumption score during the school year for males was 1.85 ethanol oz/wk (4 drinks), and for females was 1.19 ethanol oz/wk (2 drinks). Males but not females significantly reduced their alcohol use from summertime to school year. Student norm categories for drinking narrowed from September to April, suggesting that strengthening norms were the product of social experience with classmates. The consensually defined upper boundary of "moderate" drinking was interpreted as a threshold separating acceptable from excessive drinking (at 8.55 ethanol oz/wk, more than 2 drinks per day). Only 2 students described excessive drinking at both timepoints.

School-year drinking levels were not significantly related to sociodemographic factors, mood, academic performance, or parental alcohol abuse. Lower school-year drinking levels were evidenced by students who drank less over the prior summer, valued the respect of peers and instructors more, cited more relatives in their social networks, felt friends dependent on them less, and described themselves as more emotionally vulnerable. Thus the heaviest drinkers among these first-year medical students appear to be precisely those individuals who are most impervious to peer or other social influences.

DRUG AND ALCOHOL USE/ABUSE IN SPANISH ADOLESCENTS

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The use/abuse of drugs is a relatively new problem in Spain. However the abuse of tobacco and alcohol by teenagers has a longer history. The present use/abuse of drugs started in the mid-seventies and has reached epidemic proportions in the youngest population becoming a social problem.

The meaning of the groups, the psychosocial factors and the representational system of ideas that facilitate or inhibit the initial or the continuation of drug use/abuse were studied in a national level research project.

The potential relationships among those factors are discussed. The place of parents, teachers and the responses of the society at large were considered. The data shows a distinct influence of the group compared with the traditional research in the area, and how this influence brings the initial age of the first use down.

The subjects were adolescents of both sexes between 12 and 18 years.

The paper also gives a view of the problem with alcohol and tobacco, and the current measures taken to modify the actual situation.

THE DRUG PROBLEM IN THE FEDERAL REPUBLIC OF GERMANY

J. Müller, Drug Dependence Research Institute, Faculty of Social Work, Department of Law, Polytechnic Koblenz, Federal Republic of Germany.

There is a general insecurity in how to deal with addiction and drug consumers. Theories regarding preventive drug work point out the interdependence of individual and social conditions. Generally, addiction is based on an attitude of escape.

The consumption of drugs in the FRG is increasing. There is registered one drug delinquent per one hundred thousand inhabitants.

In 1982 a new regulation of criminal law against drugs (BtMG) went into effect. The highest sentence has been raised from ten years of imprisonment to fifteen years. Since the change of the BtMG, less offenders are put on probation. The aim of bringing more addicted drug-offenders into therapy was not reached. Between 10,000 and 15,000 addicted people are imprisoned.

DRUG USE PATTERNS OF NURSING STUDENTS IN SCOTLAND'S TAYSIDE REGION: IMPLICATION FOR EDUCATION

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The purpose of this study was to determine the drug taking patterns of nursing students in the Tayside region of Scotland and the possible implications for health education among health professional students.

Of first and last year students in the three nursing training institutions in the region, 212 were randomly selected to participate in the study. They were administered a questionnaire based upon WHO guidelines to determine quantity and frequency of the consumption of various substances commonly used in English speaking cultures.

The results indicate that of these students, 86% had consumed coffee or tea, 74% alcohol, 47% analgesics, 36% tobacco, 3% cannabis, 2% antihistamines, and less than 1% other substances including sedatives, tranquilizers and opiates at least once a month. In comparison by sex a significantly ($p < 0.05$) higher percentage of males compared to females smoked tobacco (48% vs 35%), cannabis (5% vs 2%) and drank spirit (86% vs 75%) and beer (87% vs 21%) at least once a month. Analgesics, however, were consumed significantly ($p < 0.001$) more frequently by females (51%) compared to males (14%) on a monthly basis.

higher frequency of students in this sample consumed alcohol compared to Scotland as a whole and over one third used cigarettes. Because of the high rate of alcohol and tobacco use by these nursing students, it is suggested that information concerning the health consequences of tobacco smoking and implications of heavy drinking be included as part of the nursing curriculum.

DRUGS, CONSCIOUSNESS AND SOCIETY: CAN WE LEARN FROM OTHERS' EXPERIENCE ?

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Alcohol, tobacco and other psychoactive drugs have had many other material uses and symbolic meanings in human history. Societies have differed in what was regarded as problematic about drug use, with concerns until fairly recently focused on social problems, crime and vice rather than on health or casualty consequences. Industrialization, urbanization and improvements in transportation have had contradictory effects, increasing and entrenching the availability of psychoactive drugs and often converting their use from occasional to everyday, but also increasing new demands for concentration and self-control incompatible with the effects of many psychoactive drugs. Some recurrent historical scenarios of changes in use and in societal reaction to use are considered, with attention to symbolic as well as material factors. To understand change we need to study patterns over time, drawing not

only on quantative evaluations of "natural experiments" in change, but also on an ethnographic and social historical work.

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ECONOMIC COSTS TO SOCIETY OF ALCOHOL PROBLEMS IN ONTARIO AND IN CANADA

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One of the more important considerations for policy making and program planning is the cost of social problems. The author describes a method for estimating alcohol-related social costs from costs due to excess health care, reduced labour productivity, law enforcement activities, and social welfare. In these areas alone, alcohol-related social costs in 1981 were estimated to exceed \$1.5 billion in Ontario, and \$2 billion in Canada.

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EFFECT OF ALCOHOL INTAKE DURING PREGNANCY ON REGULATION OF SLEEP-AWAKE STATE IN THE NEWBORN

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Recordings were taken in full-term infants 40 weeks gestational age according to Dubowitz. Polygraph recordings (1-2 hours) started immediately after

eding. This record was subdivided into 10.24 second epochs by a trigger pulse and scored for sleep state or wakefulness. The following states were differentiated: (Anders et al., 1971) (1) Quiet Sleep, (2) Indeterminate Sleep, (3) Active REM Sleep, and (4) Non-Sleep States (drowsiness, quiet awake, active awake, crying, etc.). Only changes in state lasting three minutes or longer were assessed as a new state. Transitory events such as movements, etc. which caused brief interruptions of the polygraphic tracing were not included in the analysis.

Observed disturbance of the sleep pattern in infants of alcoholic mothers. Quiet sleep was interrupted by opening of eyes, gross body movements, cries, sometimes lasting a long time and also jitteriness, restlessness. Due to these irregularities it was not always possible to assess the sleep cycle accurately and such periods were not analyzed. In this study we included only 10 infants delivered by mothers who were intoxicated during delivery. The duration of a sleep cycle was calculated from the onset of a quiet sleep period through a period of active sleep to the onset of the next quiet sleep period. The duration of active sleep per episode had not changed in alcohol exposed infants. However, the duration of quiet sleep per episode was reduced drastically from 23.1 ± 1.9 to 9 ± 1.6 min. and duration of quiet sleep as a percentage of total recording time decreased from 46.5 $\pm$ 4.9% to 26.3 $\pm$ 2.7%. The sleep cycles were increased from 51.3 ± 3.8 min. to 34.5 ± 3.5 min. and wakefulness as a percentage of total recording time increased from $1.3 \pm 0.9\%$ to $21.7 \pm 7.0\%$. These observations suggest that alcohol affects the development of the quiet sleep state.

THE EFFECT OF ALCOHOL ON THE ACTIVITY OF MACROPHAGE

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The immunological alterations in alcoholism with and without liver disease have been reported by many investigators. While macrophage has previously been regarded as phagosomes, many recent studies demonstrated the evidence that the cell behaves as an immunocyte.

In the present study, the reactive oxygen within macrophages from alcohol-administered mice was measured in order to study the effect of alcohol on the activity of macrophage.

Macrophages were isolated from peritoneal cells of four groups of male C3H/He mice. The first group of mice were injected with 20% ethanol into intraperitoneum four days previously and the second were injected with saline as controls. The third and fourth group of mice were pair fed alcohol-containing or the control liquid diet, respectively, for six months.

The reactive oxygen within the macrophage was quantitatively assayed by measuring the intensity of chemiluminescence which was caused by interaction between macrophages and luminol-binding microspheres. The amount of reactive oxygen was indicated by the integrated intensity of chemiluminescence.

he mean value of the amount of reactive oxygen within the macrophages from alcohol-injected mice was higher than that of the controls (4869 +/- 428 cps vs 489 +/- 18 cps). The amount of reactive oxygen within the macrophages of alcohol fed mice was also higher than that of the controls (6940 +/- 1431 cps vs 295 +/- 143 cps).

Thus, the reactive oxygen contents within mice macrophages were increased by alcohol administered either intraperitoneally or perorally.

This result suggests that alcohol activates macrophage.

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EFFECTIVE APPROACHES TO PREVENTION OF DRUG AND ALCOHOL ABUSE IN THE WORKPLACE

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The mass media has recently highlighted the multi-billion dollar losses incurred by industry as a result of drug use and alcohol abuse in the workplace. Behavior Research has successfully demonstrated a prevention/intervention model that creates to the degree possible a work environment free from drugs and alcohol. The programs are individually tailored to specific corporate needs and consider management philosophy, workforce demographics, type of industry, labor relations practices, geographic location, and legal constraints.

A major target has been recreational drug use that carries over to the workplace. Statistical

cost-benefit analysis demonstrates the effectiveness of this approach both directly (increased productivity) and indirectly (reduced liability; lower insurance and workers compensation costs).

Proper and improper utilization of controversial "options" such as urinalysis (pre-employment, probable cause, and random), biosensors (dogs), and undercover intelligence operations are discussed.

Finally, guidelines for the implementation of an effective employee assistance program (EAP) for the rehabilitation of valuable employees are detailed; individual corporate philosophy dictates the inclusion or exclusion of this and other program components.

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EFFECTS OF CYANAMIDE, DISULFIRAM AND THEIR COMBINATION WITH ETHANOL ON CONTENT OF A NUMBER OF NEUROTRANSMITTER AMINO ACIDS IN THE RAT BRAIN

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The effects of disulfiram (DS, 200mg/kg), cyanimide (CA, 60 mg/kg) and their combination with ethanol (1 g/kg, for 30 min) on the content of a number of neurotransmitter amino acids and amino acids functioning as precursors of biologically active compounds were studied.

DS, CA and their combination with ethanol did not alter the contents of aspartate, glycine or alanine. A similar tendency toward changes in the phenylalanine levels was noted both after the administration of

0.17 +/- 0.02, 0.08 +/- 0.02 μ mol/g; p 0.02), CA + ethanol (0.08 +/- 0.02; p 0.02), DS (0.17 +/- 0.02, 0.10 +/- 0.02; p 0.05) and DS + ethanol (0.06 +/- 0.008; p 0.001). Only the DS and ethanol combination resulted in a considerable increase in the tyrosine and histidine concentrations (50% in both cases). DS decreased, whereas CA elevated the content of GABA.

The data obtained indicates the active influence of both DS and CA on the brain neurotransmitter systems. The additivity of the ethanol and DS effects enables one to suggest a certain contribution of acetaldehyde (which is endogenous when DS itself is administered) into the above-mentioned changes. The opposite character of changes in the levels of GABA indicates independent effects of DS and CA on the GABA-ergic system in the brain.

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THE EFFECTS OF ETHANOL DURING THE BRAIN GROWTH SPURT: NURSING IMPLICATIONS

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The purpose of this presentation is to highlight the potential dangers of relatively low intensity and short duration ethanol exposure during synaptogenesis. Previously, the major emphasis of studies of the effects of ethanol during brain ontogeny have focused primarily on the effects of alcoholism per se. Clearly, levels of ethanol resulting from 6 or more drinks per day are harmful to the fetus. The resulting damage is typified by the neuropathology characteristic of the fetal

alcohol syndrome (FAS), which is thought to arise during the first trimester of pregnancy.

Vulnerable periods during brain ontogeny, the events that occur during synaptogenesis, the properties of developing pre and postsynaptic membranes, and mechanisms involved in recognition and adhesion processes involved in the establishment of synaptic connectivity will be discussed as a background for appreciating the potentially damaging effects of alcohol known to perturb membrane structure and function even in the adult. Because of the potential dangers of lower blood ethanol concentrations during the brain growth spurt, some recent clinical uses of ethanol also will be discussed.

Nursing implications of these levels and durations of exposure will be discussed.

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EFFECTS OF PRENATAL ETHANOL EXPOSURE ON CHILDREN'S DEVELOPMENT AND EDUCATIONAL ATTAINMENT

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Neuro-behavioural disorders are being recognized as one of the most pressing problems in contemporary health care practice; 5-7 million children may be affected. Recent evidence indicates that prenatal ethanol exposure may be central to the pathogenesis of these disorders.

Epidemiological and animal studies link prenatal ethanol exposure to a variety of symptoms of which

uro-behavioural disorders are a part. Symptoms range from overt physical abnormalities to severe and subtle psychological and social problems such as delayed psychomotor, psychometric and language development, emotional and behavioural disorders, poor memory, and attention deficits. The specific role of ethanol in these disturbances has not been fully defined. The quantity of alcohol and the gestational timing at which ethanol exposure might be hazardous requires further study. This demonstrates the need to study populations who have had single, quantifiable ethanol exposure during the prenatal period. Such a population exists in society today, the children of mothers who received intravenous ethanol to inhibit premature labour. Intravenous ethanol administration was the single most widely used treatment modality for third trimester premature inhibition in the 70's.

Studying these children prenatally exposed to this treatment would provide information concerning critical quantity and timing of ethanol exposure, and aid in identifying a potentially at risk population for impaired physical, psychological, social and educational development.

The purpose of this study is to investigate the impact on children of women whose third trimester premature labour was inhibited by ethanol administration. Assessment will be accomplished with the Achenbach Behavior Checklist, and Connors Parent Symptom/Teacher Rating Scales.

EFFECTS OF SECOBARBITAL INJECTION COMBINED WITH EXCESS CONSUMPTION OF ETHANOL ON COAGULATION IN THE SPRAGUE-DAWLEY RAT

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Both ethanol and barbiturates have been shown to alter hemostasis. However, little has been done to evaluate the effects of both of these drugs when used jointly. Male Sprague-Dawley rats were utilized in this experiment.

The animals were divided into equal groups of eight animals apiece and placed on the experimental protocol. This consisted of controls who received 1 ml of distilled water and 0.2 ml of saline subcutaneously, a second group who received 1 ml of ETOH per os by gavage, a third group who received secobarbital by subcutaneous injection of 0.2 ml and a fourth group who received a combined injection of secobarbital and 1 ml of ethanol by gavage. The concentrations of ethanol included 23% and 46% while the dosages of secobarbital were 2.8 mg/kg and 14.2 mg/kg. Coagulation factors measured included the PT, APTT, fibrinogen, coagulation factors II, V, VII, IX, and X. The 1 ml of 23% ethanol and 2.8 mg/kg of secobarbital did not induce unconsciousness in the treatment animals. However, they did appear lethargic and sluggish. The 46% ethanol and 14.2 mg/kg of secobarbital induced unconsciousness in the experimental animals as did the combination regimen.

he effects on hemostasis were variable, generally indicating that the larger the concentration of substance of abuse, the more severe the alteration in specific clotting factors. This tends to suggest that individuals who abuse ethanol or barbiturates alone could have altered hemostasis proportionally to the degree of concentration of the compounds. It also suggests that when these two compounds are combined and jointly abused, a similar proportional effect exists.

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EFFECTS ON MAINE'S 0.02 LAW TO REDUCE TEENAGE DRUNK DRIVING

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In June 23, 1983, Maine implemented an automatic one-year driver's license suspension for any person under age 20 identified by police as driving with a blood-alcohol level (BAL) above 0.02. Previously, teenagers and adults could legally drive with BALs up to 0.10 (about 5 drinks in an hour for a 155 pound person). A total of 500 16-19 year-olds in Maine and 1000 in Massachusetts for comparison were immediately surveyed using anonymous random digit dialing telephone sampling. They were asked about their state's drunk driving laws, their own drinking and driving behaviour, and traffic crash involvement during the year prior to the law. Surveys of 1000 teenagers in each state, one year later, asked about teenagers' post law behaviour, and surveys of 1000 adults in each state before and after the law asked similar questions.

In the first post law year 1500 Maine teenage licenses were suspended. Though only 1/2 of Maine's teens learned it is illegal to drive after more than one drink, reported driving after heavy drinking (5+) declined significantly among teens in Maine relative to Massachusetts's teens, and relative to adults in Maine. The proportion of Maine's teen drivers involved in traffic crashes also significantly declined from 22% to 13% relative to both Maine's adult and Massachusetts' teen drivers. Teenagers who understood the law drove less often after drinking and had significantly fewer crashes and injury crashes.

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EMERGING ISSUES OF HUMAN RIGHTS AND CONFIDENTIALITY IN EMPLOYEE ASSISTANCE PROGRAMS - A TREATMENT PERSPECTIVE

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The program for Employed Problem Drinkers of the Clinical Institute of the Addiction Research Foundation is a treatment facility which was developed in the late 60's in direct relation to the evolving Employee Assistance Programs Movement.

In an atmosphere in which management of an alcoholic employee through means other than dismissal was laudable, constructive coercion and mandatory referral were the order of the day. A direct and open relationship between employer, employee and treatment providers seemed natural in this context. Accordingly procedures were undertaken to make company involvement in treatment and rehabilitation a formal part of the program.

In recent years ever increasing concerns over human rights issues question the ethical nature of constructive confrontation and greater caution around confidentiality challenge the direct involvement of company representatives. In its extreme the current trend in Employee Assistance Programs would see all referrals voluntary, and fully removed from company influence. The major thrust would be educational and preventive.

While this goal may indeed be the idyllic one, this approach may not be altogether realistic from a treatment perspective. The dilemma must be addressed and compromises reached.

This paper describes a program which favors Company-Union pressure on employees to seek treatment. The focus will be on that aspect of the program in which Company and Union Representatives are directly involved - a feature that is unique and considered to have a positive impact on treatment outcome.

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EMPLOI DE MODELES ANIMAUX EN LA PREVENTION DES TOXICOMANIES DANS L'ECOLE

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Nous avons dessiné un système de prévention des toxicomanies adapté à l'école évitant des "jugement de leur" ou des "schémas d'adultes" qui puisse être intégré dans les objectifs éducatifs du domaine des sciences naturelles. La détection des attitudes

enclines à la consommation de drogues, leur modification à bref délai et l'accroissement des connaissances sur les recherches et les sciences naturelles ont été des objectifs prioritaires de notre modèle.

L'expérience, qui est réalisé dans le dernier cours de l'enseignement primaire se compose des phases suivantes: (1) Réalisation d'un questionnaire d'attitude préalable au déroulement de l'épreuve. (2) Dynamique préventive; l'équipe de prévention, formée par un professeur de Pharmacologie et autre de Sciences de la Conduite, apporte à l'école des souris albinos attachées aux drogues où l'on provoque le syndrome d'abstinence pour démontrer les différences existant dans le comportement des souris attachées et en abstinence par rapport aux non-attachées; en même temps le Psychologue de l'équipe réalise une observation de groupe. (3) Réalisation d'un questionnaire d'attitudes après les expériences, et (4) Connexion de l'expérience avec des programmes éducatifs pour professeurs et parents par le moyen des cours qui ont lieu dans notre Université.

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EMPLOYEE ASSISTANCE PROGRAMS VS EMPLOYEE COUNSELLING PROGRAMS

H.-G. Tittmar, Department of Psychology, University of Ulster, Newtownabbey, Northern Ireland.

EAP's have received more attention in combatting alcoholism than have ECP's. The needs from which these two types of programs arose differ; yet, the similarities between the two are greater than the

contrasts. The importance in realization of their similarities is: that the spread of EAP's is restricted in the U.K. relative to other countries. A comparison of the two types of programs highlights the potential for greater acceptance of the ECP in the U.K. Furthermore, it even suggests there to be a greater potential benefit with the ECP, since it does not only have a curative element, but by its very nature, also a preventative one.

Since the major characteristic of ECP's is to advise on coping strategies, problems tend to be brought earlier for counselling, and, indeed, by counselling antecedent problems, drinking problems still to be incurred are being negated.

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ENSEIGNEMENT UNIVERSITAIRE DE L'ALCOOLOGIE EN FRANCE

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Jusqu'il y a une dizaine d'années, il n'y a pas eu en France d'enseignement global de l'Alcoologie. Bien que les besoins y soient plutôt plus importants d'ailleurs, il y a eu longtemps une forte résistance, surtout de la part des enseignants, de sorte que le manque de formation de la plupart des médecins est flagrant et les conduit à des attitudes ambivalentes et inconfortables. Cet enseignement a été officiellement proposé en 1971, puis imposé en 1981. Le cursus des études médicales se fait actuellement en France en trois cycles distincts, et l'Alcoologie prend place au cours du deuxième cycle (dans le module de

Santé Publique), et du troisième cycle (dans la formation des généralistes). De plus un approfondissement peut être apporté, sur le plan universitaire (Diplômes d'université, Certificats Optionnels), ou en dehors de l'université, par diverses structures, notamment de formation continue.

Un exemple précis est détaillé: l'enseignement de l'Alcoolologie à Nancy, d'une part obligatoire (cours magistraux et Enseignements Dirigés aux étudiants) et d'autre part facultatif (Certificat optionnel).

Enfin des perspectives d'avenir sont abordées, insistant sur l'importance de l'expérience personnelle vécue de l'étudiant et sur la nécessité d'approfondir, en général, la formation de l'étudiant à la relation médecin-malade.

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L'ENTOURAGE DE L'ALCOOLIQUE - SA PROBLEMATIQUE - SON ETUDE CLINIQUE

M.-C. Lejosne, Association "Que dois-je faire: il/elle boit !", Paris, France.

L'alcoolisme est une aliénation de soi, des autres, de l'entourage.

Que dois-je faire: il/elle boit ! La question est posée par ceux ou celles qui veulent parler de leur souffrance et rompre le silence sur l'absurde de leur situation. Quel devoir et quelle action mener devant l'excès de boisson et ses conséquences?

de la turbulence à la tempérance, il est possible de repérer deux problématiques importantes en écoutant l'entourage de l'alcoolique, l'une familiale, l'autre sociale. L'étude clinique s'élabore dans cet écart entre les deux problématiques.

Au nom de l'amour, quel jeu toute une famille est menée à jouer ?

Au nom de la loi, comment l'amour en règle la partie et en fausse les données ?

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N ESTIMATE OF THE DEMAND FOR ALCOHOL IN CANADA, 1959-1982

J.E. Collishaw, G. Myers & B. Rogers, Bureau of Tobacco Control and Biometrics, Health and Welfare Canada, Ottawa, Ontario, Canada.

The effects of effective price and total alcohol advertising expenditure on consumption of alcoholic beverages were examined using a state adjustment multiple regression model, a type of analysis suited to the examination of habit-forming commodities.

Variations in effective price accounted for 98% of the variance in consumption of absolute alcohol. The short and long run effective price elasticities were -0.548 and -0.560, respectively.

This analysis did not detect any effect of advertising expenditure on consumption. However, advertising expenditure data were incomplete.

AN ESTIMATE OF THE DEMAND FOR TOBACCO IN CANADA, 1950-1982

N.E. Collishaw, G. Myers & B. Rogers, Bureau of Tobacco Control and Biometrics, Health and Welfare Canada, Ottawa, Ontario, Canada.

The effects of real and effective tobacco prices, personal disposable income and tobacco product advertising expenditures on consumption (sales) of tobacco products were examined, using a state adjustment multiple regression model, a type of analysis suited to the examination of habit forming commodities.

Variations in disposable income and tobacco prices accounted for 92% of the variance in tobacco consumption. The short and long run income elasticities were +0.404 and -0.809, respectively. The short and long run price elasticities were -0.423 and -0.906, respectively.

This analysis did not detect any effect of advertising expenditure on consumption. However, advertising expenditure data were incomplete.

ETHANOL CONTENTS IN DRINK DRUGS AND COOLING BEVERAGES ON THE MARKET IN JAPAN

M. Irizawa & S. Komura, Department of Legal Medicine,
Kyoto Prefectural University of Medicine, Kyoto, Japan.

There are many drink drugs and cooling beverages on the market in Japan. It has been reported that small amounts of ethanol were added in drink drugs without expression on the label. Ethanol levels were measured in 27 drink drugs and 19 cooling beverages on the market in Kyoto, Japan, using gas chromatography. After some of these products were consumed by adult Japanese men, blood ethanol levels were measured by gas chromatography, and breath ethanol levels were measured by SD type Kitigawa alcohol detector tube. The results and conclusions are summarized as follows:

1) Ethanol was detected in all of the 27 drink drugs and most of the 19 cooling beverages. The maximum ethanol level for a drink drug was 78.50 mg/ml, and for a cooling beverage, the maximum ethanol content was 1.57 mg/ml. In three cases the ethanol levels were higher than that of beer.

2) The blood ethanol levels were about 0.012 mg/ml at the peak time after the drinking of one bottle of the highest one (1.57g ethanol was contained in one bottle).

These results suggest that the levels of ethanol in drink drugs and cooling beverages cause no problems.

3) Ethanol was detected over 0.25 mg/l from the breath for a few minutes after drinking one bottle of some of them.

The detection of ethanol on the breath is usually carried out for regulation of drinking drivers in Japan. These results suggest that the ethanol added in drink drugs and cooling beverages is only a minor cause of trouble on road traffic.

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ETHNIC DIFFERENCES IN REPORTED RATES OF ALCOHOLISM IN TRINIDAD AND TOBAGO

P. Parasram, et al., St. Ann's Hospital, St. Ann's Trinidad, West Indies.

Research findings published over a decade ago suggested that East Indians in Trinidad and Tobago had significantly higher rates of alcoholism than did other ethnic groups. These findings were based on hospital admission rates.

The aim of this research was to determine whether the earlier findings could still be supported and whether the disparity in rates would be found in general population studies. Three separate studies clearly show higher rates of alcoholism in East Indians.

Possible reasons for the difference in rates are suggested and current and future research discussed.

VALUATING A DRINK-DRIVING INTERVENTION

. Ballard (1), J. Najman (2), F.D. Schofield (2), M. heehan (2), V. Siskind (2) & B. Smithhurst (2); (1) Alcohol and Drug Program Unit, Department of Education, Brisbane, Australia; (2) Social and Preventive Medicine Department, University of Queensland, Brisbane, Australia.

Bad accidents are the major cause of morbidity and mortality in young male Australians. These accidents are frequently related to alcohol consumption by young drivers. The present paper describes a model for systematically developing a curriculum integrated drink-driving program for high school students. The aim is to assess whether the program will have an impact on the reported drink-driving offenses, injuries and deaths of young drivers using control-experimental schools.

Using a single behaviour (drink-driving) directed model and following the Ajzen and Fishbein theory of social behaviour we are developing an educational program focused on the circumstances, attitudes, intentions and normative beliefs of young adults about drink-driving. In order to develop this educational material we have interviewed 350 students and discussed their experience of the behaviour with them. Their insights and information are being used in a large survey of 10th grade students to be held in the second half of 1985 to quantify the direction of influences on the behaviour and to determine the most appropriate methods of intervention.

The outcome evaluation will be conducted with the aid of the State Transport authorities and involves monitoring officially reported road accident deaths, injuries, and blood alcohol levels in the cohorts of drivers from the "experimental" and "control" schools to determine the effectiveness of using a school-based intervention.

We report on some preliminary findings of our study concerned with modelling of drink-driving, availability and sources of pressures for and against the behaviour

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EVALUATING EMPLOYEE ASSISTANCE PROGRAMS

P.A. Dueck, INTERLOCK Employee Assistance Society
Burnaby, British Columbia, Canada.

Employee Assistance Programs make success claims which often are based on the subjective impressions of the providers of the service.

INTERLOCK, one of the foremost EAP providers in Canada with over 50 contracts, initiated a pilot project EAP involving some 2,000 employees in B.C. The terms of reference included an evaluation format which was more thorough than usual and had an outcome component to it.

The results of the first pilot are most encouraging and rather surprising. What was particularly gratifying was the effect of a preservative-oriented EAP on work of performance factors.

VALUATING MEDIA-BASED PREVENTION PROGRAMS

J.P. Nutter, Alberta Alcohol and Drug Abuse Commission, Evaluations Division, Edmonton, Alberta, Canada.

During the last several years, the Alberta Alcohol and Drug Abuse Commission has developed and implemented a mass-media based alcohol primary prevention program aimed at adolescents. From the beginning, program evaluation was seen as an integral component of the program planning and development process.

This paper will present the evaluation model within which the evaluation research is carried out. In addition, selected findings of the research completed to date will be reviewed.

AN EVALUATION OF A TREATMENT CENTRE DESIGNED TO MEET THE SPECIFIC NEEDS OF ALCOHOL-DEPENDENT WOMEN

J. Steffens (1), V. Carver (2), L. Pinder (3) & J. Johnston (3); (1) Carleton University, Ontario, Canada; (2) Addiction Research Foundation, Toronto, Ontario, Canada; (3) Health and Welfare Canada, Ottawa, Ontario, Canada.

This paper describes the development, implementation and results of a project establishing the first treatment centre in Canada designed to meet the special needs of alcohol dependent women.

Amethyst Women's Addiction Centre opened in 1979, primarily funded by a contribution from Health and Welfare Canada. The centre offered a four-week day program and child-care was also available.

An extensive battery of psychosocial and physical measures was administered to clients at intake and 6 and 12 months after completing the four-week program. At the 12-month follow-up, 45.8% of clients were abstinent and a further 25% were drinking non-hazardously. Positive changes in drinking behaviour were also significantly related to improved assertiveness skills, self-esteem and physical health. Though not significantly related to changes in drinking behaviour, improvement also occurred in psychological well being, relationships with family and friends, and in employment status.

Women who continued to drink heavily were more likely to enter the program with fewer resources. They were generally less assertive, had lower self-esteem, were more likely to have been drinking recently, and tended to drink alone.

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EVALUATION OF AN EARLY INTERVENTION PROGRAM FOR PROBLEM DRINKERS

C. Dignam, Alberta Alcohol and Drug Abuse Commission Evaluations Division, Edmonton, Alberta, Canada.

The Edmonton Downtown Treatment Centre's Drinking Decisions Program began operation November, 1981. It is an early intervention program aimed at people who

are beginning to have some problems with drinking.

The program has an educational format and consists of ten one-hour individual counselling sessions. The first two sessions assist the client in assessing if the program is appropriate for him/her. The remaining eight sessions assist the client in monitoring drinking, setting weekly goals to reduce drinking and developing strategies to maintain drinking at a healthy level.

An evaluation of this program, the purpose of which is to determine treatment effectiveness, is currently in progress. Clients referred to the program have been followed up one to three years after treatment. They have been interviewed by phone and asked about their current drinking pattern and problems, as well as their perceptions of the program and its effect on their drinking. The evaluation will be completed by June, 1985. The paper will present the results, and discuss applications for treatment.

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EVALUATION OF AN IN-PATIENT WOMEN'S ADDICTION TREATMENT PROGRAM

J. Douglas & G. Pesheau, Alberta Alcohol and Drug Abuse Commission, Edmonton, Alberta, Canada.

A women's treatment program consisting primarily of single-sex group therapy and female individual counsellors was evaluated within an in-patient addictions treatment facility. Comparisons were made with co-sex and all-male groups on measures of process and treatment effects.

Identified group process differences, as measured by the Moos Group Environment Scale, were perceived level of "anger and aggression" and perceived level of "order and organization". Women's groups reported the lowest levels of anger and aggression ($p < 0.04$), while all-male groups reported the lowest order and organization levels ($p < 0.02$). Additionally, women-only groups discussed assertiveness more often than did the other groups ($p < 0.001$) and all male groups more frequently discussed future plans ($p < 0.02$).

While all groups increased during treatment in self-esteem, assertiveness, general happiness and internality, there were no differences in treatment effects across groups on these measures.

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AN EVENING AND WEEKEND TREATMENT PROGRAM FOR ALCOHOLISM IN THE WORKPLACE

D.A. Masi, University of Maryland, Baltimore, Maryland
U.S.A.

The Employee Counselling Service model for the evening and weekend alcoholism treatment project was implemented as a demonstration in 1982-83 for the Employee Assistance Program at the U.S. Department of Health and Human Services, the model EAP for the U.S. federal government. It was originally conceived in Boston, Massachusetts, in the late 70's by the presenter as an alternative to the 28-day in-patient approach when she served as administrator for several EAP's.

uch a program would address the diverse needs of the working individual and allow EAP's to provide input into the treatment in so far as what these needs would

he project was to cover treatment of up to 65 clients and was located at the EAP offices that were not utilized in the evenings. The program used a carousel approach in which up to 6 groups of up to 12 clients each were to be formed in sequence over the course of the demonstration. The Blue Cross Insurance Company funded the project.

his presentation will cover the evaluative results of the treatment. The evaluation was subcontracted to a private evaluation concern to ensure objectivity. The results have been highly favorable as well as cost-effective.

EVOLUTIONARY ORIGINS OF THE PREFERENCE FOR ALCOHOL

Singh, Psychology Department, University of Texas, Austin, Texas, U.S.A.

There are obvious associations between alcoholism and malnutrition. Traditionally the explanations involve toxic consequences on the liver, pancreas and digestive tract. These relationships do not, however, account for suppression of appetite by even low levels of alcohol ingestion. Alcohol has a satiety effect that is immediate and out of all proportion to its caloric effects or toxic repercussions.

Investigations reported here with Rhesus monkeys fed isocaloric fruit juice, or juice mixed with 5% alcohol, suggest that alcohol can act as an anticipatory cue for subsequent assimilation of calories. In other words, alcohol acts as a physiological signal to regulate caloric needs. It is argued that the evolutionary history of organisms faced with fermenting fruits and grains sets the stage for both the use of alcohol as a signal of satiety as well as for run-away alcoholism.

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EXCRETION OF CANNABINOID METABOLITES

G.M. Ellis, Jr., M.A. Mann, B.A. Judson, N.T. Schramm & A. Tashchian, Treatment Department, Naval Drug Rehabilitation Center, San Diego, California, U.S.A.

The urine excretion patterns of 86 chronic cannabis users were examined after their last usage by two screening methodologies; the semi-quantitative EMIT-d.a.u.tm and the qualitative EMIT-sttm.

This study demonstrates that chronic users under very strictly supervised abstinence can be cannabinoid-positive of the EMIT-d.a.u.tm assay at 20 ng/ml for up to 46 consecutive days from admission and take up to 7 days to drop below the cutoff calibrator for ten consecutive days. The mean excretion time was 27 days for the subjects. Subject excretion patterns were clearly biphasic, with initial higher rates of excretion not being sustained. The initial rapid excretion rate was followed by a much slower and flatter pattern of excretion. In this second phase some subjects had up to eight separate sequences of

cannabinoid-negative results within an overall positive pattern, lasting up to 10 days or more. Overall, demographic, body type, and drug history variables proved to be only fair predictors of excretion patterns.

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UNE EXPERIENCE ORIGINALE DE PREVENTION DE L'ALCOOLISME DANS UN GROUPE A HAUT RISQUE

. Caro, Bretagne, Alcool et Sante, Rennes, France.

Dans un Foyer d'hébergement et de réinsertion sociale accueillant en majorité des anciens prisonniers, les problèmes d'alcoolisme sont importants.

Depuis plus de 3 ans, est réalisée, dans ce Foyer, une expérience originale de prévention.

L'axe principal de l'expérience consiste en réunions hebdomadaires. Les réunions sont inspirées par la recherche de la plus grande liberté d'expression possible, dans le respect des diverses expériences et opinions. C'est une condition préalable à une information non moralisatrice sur les problèmes d'alcool proposée aussi au cours des réunions.

A partir de cette expérience, un film de 52 minutes "Etats d'ivresse" a été réalisé et diffusé par l'une des 3 chaînes de télévision française. C'est à la fois une fiction et un documentaire. Les acteurs sont des pensionnaires du Foyer. Ce film est régulièrement utilisé à l'extérieur du Foyer dans des activités de prévention et de formation initiale et continue. Une

description et une évaluation de l'expérience sont présentées.

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EXPLANATORY TRIAL OF LITHIUM THERAPY FOR ALCOHOLISM

J. Fawcett, D. Clark & V. Pisani, Department of Psychiatry, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois, U.S.A.

We examined the efficacy of lithium for the treatment of alcoholism in a double-blind placebo-controlled study of 104 men and women entering an in-patient alcoholism rehabilitation program, and subsequently followed for 12 months. Volunteers were evaluated with the SADS-RDC interview, and then assigned randomly to a lithium or placebo condition. Subjects were interviewed about their medication compliance and drinking status weekly through the first three months of treatment and weekly through any period of drinking, but never less than monthly. A significant other was interviewed extensively at the 6- and 12-month follow-up points. Subjects were divided into five groups based on compliance criteria: lithium compliant (high and low blood levels (BL)), lithium non-compliant, placebo compliant, and placebo non-compliant.

The abstinence rates (i.e., not a single drink) of the five treatment groups were compared by means of survival analysis, and the results revealed essentially three categories of treatment response: one for non-compliant subjects (12% abstinent), one for compliant subjects without high BL (40% abstinent) and one for compliant subjects with high BL (68% abstinent). Two findings lead us to believe that

therapeutic serum levels of lithium were associated with better outcome over and above a behavioural compliance effect. First, high and low BL subjects were significantly less likely to relapse to drinking during the first month than placebo compliant subjects. Second, in a dose-response analysis, patients with the highest lithium BL did not show the highest abstinence rate. There was no evidence that depressed alcoholics showed any better response than non-depressed alcoholics, or that lithium had any significant impact on patient mood. We conclude that lithium may exert a direct attenuating action on the drinking behaviour of alcoholic patients, and that affective disturbance did not mediate that impact.

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FACTORS AFFECTING OUTCOME IN A GROUP OF IN-PATIENT ALCOHOLICS

. Basile, G. Vitale, A. Molaro, M. Modesti (1) & S. De Marchi (2); (1) Servizio Alcolgico; (2) Ospedale di Codroipo, Codroipo, Italy.

We have evaluated the outcome, after a follow-up of 12 to 36 months, of 158 in-patient treated alcoholics aged 22 to 70 (mean 45). All maintained close contact with the unit and/or attended AA or CAT ("Club Alcolisti in trattamento", a self-help group composed of alcoholics, their relatives and a leader, often nonprofessional, trained in alcoholism).

The evaluation of the treatment was based on: (1) direct interview by one of us, (2) information from relatives, and (3) information from abstinent fellow

alcoholics. A "good outcome" had to fulfill the following goals: (1) total and continuing abstinence, (2) close attendance to AA or CAT, (3) evident improvement in reasoning, and (4) stability in work and/or family relationships. Partial improvements were not considered as "good outcome". The outcome, which overall has been "good" in 72% (114 patients) of the cases, has been investigated for any of the following variables: (1) attendance to AA or CAT, (2) presence or not of symptoms of physical dependence, (3) presence or not of serious physical complications, and (4) presence or not of social emargination. The results point to a more favorable outcome for the patients attending CAT after the in-patient therapy and the patients belonging to groups 2 and 3.

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THE FAMILY RECOVERY PROGRAM - A TREATMENT CENTER FOR CHEMICALLY DEPENDENT WOMEN AND THEIR CHILDREN

D. Halkias, The Salvation Army Adult Rehabilitation Center, San Diego, California, U.S.A.

One of the primary problems facing women alcoholics/addicts in recovery is the lack of treatment centers where a woman can have her children with her during treatment. This issue led The Salvation Army to establish The Family Recovery Program in San Diego, California, an innovative facility providing residential treatment for chemically dependent women and their minor children.

Major issues facing the female alcoholic/addict in treatment and in the motherhood role will be discussed

research will be cited to defend the growing need for such a treatment model, the family pressures faced by women forced out of treatment prematurely due to the lack of child care alternatives, and the benefits of children participating in residential facilities for recovering women.

The paper also gives a detailed explanation of the Family Recovery Program in San Diego from problems faced at the early proposal stages to its present operational state.

FACTORS ASSOCIATED WITH MEDICATION COMPLIANCE AMONG ALCOHOLICS

Pisani, D. Clark & J. Fawcett, Department of Psychiatry, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois, U.S.A.

examined the psychosocial characteristics that retrospectively discriminated between those who took their assigned medication regularly and those who did not in a double-blind placebo-controlled study of 104 men and women entering an in-patient alcoholism rehabilitation program, then subsequently followed for 12 months. Volunteers were evaluated with the SADS-RDC interview, and then assigned randomly to a lithium or placebo condition. Subjects were interviewed about their medication compliance weekly through the first 3 months of treatment and weekly through any period of drinking, but never less than monthly. A significant trend corroborated our compliance data at the 6- and 12-month follow-up points.

The variables associated with compliance behaviour in univariate analyses were subjected to a principal components (factor) analysis, and 5 factors emerged as significant: (1) distress/unusual experiences on self-report symptom inventories; (2) better education, higher IQ, and higher socioeconomic station; (3) female sex, anhedonia, and younger age; (4) phobic anxiety and paranoid ideation on self-report symptom inventories and a history of suicide attempts; and (5) current suicidal tendencies. In a logit regression, factors 1, 4 and 5 were significantly associated with non-compliance; factor 2 was significantly associated with compliance; and factor 3 showed a non-significant tendency ($p=0.07$) to be associated with compliance. Factor 1 considered alone accounted for the great burden of variance in distinguishing compliance from non-compliant subjects.

Because there was a significant relationship between medication compliance and AA meeting attendance, we hypothesize that compliance may be the manifestation of a premorbid personality that can be assessed prior to beginning treatment to detect high risk patients.

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FETAL ALCOHOL SYNDROME: NEW FINDINGS

A. Streissguth, University of Washington, Seattle, Washington, U.S.A.

A ten year follow-up study of children diagnosed with Fetal Alcohol Syndrome in 1973 has indicated that the growth deficiency continues into adolescence but with puberty the girls appear short and stocky. Specific

phenotypic characteristics remain similar over time, though increased growth of the mandible and nose produce a somewhat different facial appearance. Half the children had I.Q. scores in the borderline retarded to dull-normal range while others were clearly mentally retarded and needed sheltered environments. Those with the highest I.Q. scores had the most social, emotional and school problems. The mothers of these patients were all chronic alcoholics.

Recent work from the Seattle Longitudinal Prospective Study on Alcohol and Pregnancy indicated continued behavioural effects of prenatal alcohol exposure at levels lower than maternal alcoholism. Subtle attentional effects, measurable with sensitive laboratory tests, are observable in four and seven year old children who appear clinically normal. These studies use statistical adjustment for a wide variety of potentially confounding variables.

The presentation will elaborate on these two studies which show long lasting effects of several levels of intra-uterine alcohol exposure in human beings.

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TWIN PAIRS OF TWIN CASES WITH ALCOHOL DEPENDENCE

Yamada & A. Asaka, Faculty of Health Sciences, University of Tokyo School of Medicine, Tokyo, Japan.

The twin study was carried out to analyze genetic and environmental factors related to the causes of alcohol dependence. First of all, a nationwide hospital survey to look for twin cases with alcohol dependence was made. We found 15 probands, out of which only 5 pairs,

4 male and 1 female pair, were available for further investigations, including interviews, zygosity diagnosis and so on.

The subjects were proved monozygotic through the examination of several kinds of genetic markers. The diagnosis of alcohol dependence was made by DSM-III and 3 of them were judged discordant.

After clinical investigations of their life histories and alcohol-related problems, intimate relationships between them and their neighbours, such as co-twin spouse, parents and/or superior officers were considered to be influential factors on the discordance.

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FIVE YEAR FOLLOW-UP OF ADDICTS TREATED IN THE EMILIEHOEVE THERAPEUTIC COMMUNITY

M. Kooyman, Institute for Preventive and Social Psychiatry, Erasmus University, Rotterdam, The Netherlands.

The first 250 residents of the Emiliehoeve Therapeutic Community have been followed after their discharge for at least five years.

The findings of this follow-up research confirm follow-up findings elsewhere. This research is the first of its kind that has been carried out in The Netherlands.

The findings have been compared to a small group of addicts who had been referred but decided not to choose admission.

he findings are related to different phases in the development of the treatment in the therapeutic community.

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FOOD AND MOOD: PSYCHONUTRITION FOR PREVENTION AND HIGH-LEVEL RECOVERY - A WELLNESS MODEL OF CHEMICAL DEPENDENCY

J.R. Land, Nutrition Information Systems, Portsmouth, New Hampshire, U.S.A.

Psychonutrition is the study of dietary/nutritional variables in brain and central nervous system function with a focus on optimum rather than adequate nutrition. High-Level Recovery is a concept that emphasizes optimum recovery and prevention of relapse through adaptation of wellness skills.

This session is designed to familiarize participants with systems/holistic concepts linking diet (foods that minimize risk for chemical dependency) and nutrition (therapeutic supplements) to chemical dependency and dysfunctional behaviour. Both diet and nutrition are discussed as focal components of a wellness model. The central hypothesis of this model is that biological/nutritional integrity is fundamental to effective learning, development and self-management (prevention), as well as to optimum recovery and optimum support of other treatment modalities.

Wellness concepts and skills are discussed as the basis for individual, family, and community prevention

programs and as the basis for achieving a state of High-Level Recovery.

Specific points of focus include:

- How poor nutrition can lead to and sustain chemical dependency
- The effects of diet and nutrition on personality, moods and behaviour
- A systems approach to prevention and treatment
- The relationship between nutrition and stress
- Eating disorders linked to drinking disorders

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FORENSIC PROFILES OF DRUG/ALCOHOL ABUSE

S. Wolfe & E. Zaba, Regional Psychiatric Centre (Prairies), Saskatoon, Saskatchewan, Canada.

We will present statistics that have been gathered at our forensic facility. These statistics have been gathered from each informal inmate that comes to our centre for assessment and/or treatment, as we service Western Canada penitentiaries.

Although only 32.3% consider themselves problem drinkers, and 28.8% label themselves alcoholic, when they are asked the direct question, only 11.7% have been in contact with other drug/alcohol treatments and 37.7% have been in contact with AA (Alcoholics Anonymous). A small 5% are actively attending and living the steps of the AA program.

The use of marijuana, amphetamines, barbiturates, hallucinogens, cocaine and opiates were divided into experimental, moderate and heavy use. The use of marijuana followed by hallucinogens came out to be highest in the heavy use category.

We will present the use of drugs/alcohol, or cross addiction that were used in each specific crime: for example, sex offenders were high in the use of alcohol and marijuana. The forensic profile will include crimes such as break and enter, property offences, armed robberies and murder. The percentage of violence used in each crime is documented.

As we are still a new facility, we are currently working on different programs for our centre. Although the AA program workers come to our centre, the attendance from our clientele/patients on the inside is very small. Does the AA program take more motivation than most of our patients can produce? Do we need to give them more encouragement? Do they need specific programs for drug/alcohol addiction? Do they need to have a specific mandatory program that is conditional to evaluation before their release from the system? These and other questions will be addressed.

THE FORMULATION OF A NATIONAL POLICY ON ALCOHOL IN AUSTRALIA

D.V. Hawks, Western Australian Alcohol & Drug Authority, Perth, Western Australia.

The evolution of Australian policy on alcohol will be discussed together with recommendations relating to availability, taxation, advertising, licensing and treatment for alcohol-related problems.

GENDER-ROLE ORIENTATIONS AND DRINKING AMONG WOMEN IN A U.S. NATIONAL SURVEY

S.C. Wilsnack, A.D. Klassen & S.I. Wright, School of Medicine and Department of Sociology, University of North Dakota, Grand Forks, North Dakota, U.S.A.

Recent studies have investigated relationships between women's drinking and women's orientations toward traditional masculine and feminine roles. Most studies have used clinical samples of alcoholic women or small, non-representative samples of nonalcoholic women in the general population.

The present study examined gender-role orientations and drinking in a representative national sample of 917 U.S. women, stratified to include 500 women who drank at least 4 drinks/week. On a measure of gender-typed personal values, women who endorsed more traditional masculine values (e.g., power, achievement, indepen-

ence) were more likely to be drinkers and, among drinkers, to drink more heavily. Masculine values were also positively associated with rates of self-reported drinking problems and alcohol dependence symptoms among drinkers. Similarly, on an index of traditionality of marital, employment, and parental roles, nontraditional role performance was positively related to drinking and heavier drinking, and to drinking problems and alcohol dependence symptoms among drinkers. On a measure of perceived personality attributes, women with "androgynous" self-concepts who combined traditional masculine and feminine attributes, were less likely than nonandrogynous women to be heavier drinkers.

Possible interpretations of these findings include:

- 1) a role performance explanation, in which drinking and heavier drinking are aspects of nontraditional role performance for women, associated with increased drinking opportunities and more permissive drinking norms; and
- 2) a role conflict explanation, in which alcohol is used to reduce conflict or stress resulting from women's deviation from expected gender-role behaviour.

Additional analyses bearing on these interpretations are reported.

THE GENERATION PRESCHOOL PROJECT

L. Ouimet (1), C.A. Moyer (2), B. Ouellet (1) & V. Creswell-Jones (2); (1) Health and Welfare Canada, Ottawa, Ontario, Canada; (2) Canadian Cancer Society, Toronto, Ontario, Canada.

Promoting non-smoking amongst children requires basic education that begins at a very early age. By age 3, half of Canadian children have tried smoking and experimentation begins as early as age 6. Ninety per cent of children age 3 to 7 are aware of smoking and 95% know someone (often a parent) who smokes. Since parents, caregivers and other adults are important role models for young children, a strategy to promote the development of positive values toward non-smoking amongst children must include key adults.

This project is part of a Generation of Non-Smokers Program. The program's goal is to prevent young people from starting to smoke. The preschool project is aimed at four and five year old children and their parents. This is a cooperative project of Health and Welfare Canada and the Canadian Cancer Society.

Six short films, three in English and three in French (30, 60 and 180 seconds in length, respectively) were produced and tested among young children. The television segments will be broadcast during popular children's programming.

Supportive educational materials including audiovisual materials were designed for use in day care centres and kindergartens.

his paper presents an overview of the collaborative development of the program and evaluation results to date regarding the appeal and impact of the program elements, character and messages among young children.

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GROUP COUNSELLING WITH ALCOHOL OFFENDERS: AN ANALYSIS AND TYPOLOGY OF DWI PROBATIONERS

J.K. Berliner, Texas Christian University, Fort Worth, Texas.

This report describes the inception and evolution of a fourteen month project providing group counselling to men and women offenders placed on probation after conviction for driving while intoxicated (DWI). Modifications of group counselling techniques, necessitated by the "involuntary" nature of members' participation, are described.

Some generalizations are presented concerning social psychological components of drinking and driving while intoxicated. Two models of those convicted of DWI are proposed. The first model distinguishes salient characteristics of occasional, social and "problem" drinkers. The second identifies and discusses various group participant roles, e.g., the "elder statesman", the "missionary", the "old-timer", the "injustice collector", etc. Each role represents both an expressive "voice" for others in the group and an aspect of the total group dynamics.

Ideas are offered for further study of alcohol abusers who develop DWI records. Suggestions are presented for

enhancing the effectiveness of group treatment programs.

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GROUP THERAPY AS TREATMENT FOR ALCOHOLIC KORSAKOFF SYNDROME

J.T. Gillese (1) & G. Munro (2); (1) Department of Psychology, University of Alberta, Edmonton, Alberta, Canada; (2) Claresholm Care Centre, Claresholm, Alberta, Canada.

Both alcoholism and amnesia are traditionally considered negative selection factors for group therapy. Thus, chronic alcoholic amnesia (Korsakoff syndrome) is generally not treated by group processes.

We used structured group therapy to treat Korsakoff syndrome. Using a long-term residential population, our results indicate substantial learning over time. More general benefits of the group therapy include increases in language functions and social skills. The results are presented as an aid to treatment and discussed in view of current learning theory.

GROUP THERAPY WITH ADDICTED VETERANS

N. D'Abadie, Drug Dependence Treatment Unit, Veterans Administration Medical Center, Atlanta, Georgia, U.S.A.

Group therapy is commonly used in the residential and in-patient treatment of addicts. These patients typically display marked character pathology, manipulative behaviour and resistance to psychotherapy. The paper describes approaches to working with addicted veterans in a group setting on the Drug Dependence Treatment Unit of the Veterans Administration Medical Center, Atlanta, Georgia, U.S.A.

The six-week in-patient program of the Drug Dependence Treatment Unit and the treatment needs of the patient population are described. These addicted veterans are most often brought to treatment by external pressures (e.g., legal, familial, financial) and show varying degrees of motivation for treatment, abstinence and recovery. Many of them are Vietnam era veterans; many are products of alcoholic families with attendant chaotic early experiences.

The theme of the paper is that this population is usually neither prepared for nor seeking insight-oriented psychotherapy, so group treatment must pursue other goals. It can appropriately provide information, non-intrusive confrontation and orientation to treatment, even before the addicted veteran becomes meaningfully engaged in treatment. Groups on this short-term in-patient unit are most useful when addressing attitudinal and behavioural obstacles to treatment and recovery.

HAEMATOLOGICAL CHANGES OF ALCOHOL ABUSE

K. Hampl, District Institute of National Health,
Melnik, Czechoslovakia.

Alcohol abuse influences many haematological parameters. We were studying some of them both in alcohol abusers and in a control group of other outpatients.

Coagulation disorders: The extrinsic coagulation pathway was determined by prothrombin time (Quick). The decrease of coagulation activity under 80% normal value was shown to be equal in both groups. The decrease under 50% was observed only in alcohol abusers.

Intrinsic coagulation pathway was followed by the aid of recalcification time of whole blood (modified Howell). The prolongation of clotting time occurred more frequently in the control group.

Bleeding disorders: For proving possible bleeding disorders, the examination of platelet count and platelet function was used. Platelet function was derived from the bleeding time.

Thrombocytopenia and prolongation of bleeding time occurred in the same number of both groups. But prolongation over 270 sec was observed only in alcohol abusers. The risk of increased bleeding is higher at higher alcohol concentration in the blood and in the presence of liver damage.

Possibility of thromboembolic complications: Thromb

cythemia was more frequent in alcohol abusers. It occurred in withdrawal periods. It could participate in thromboembolic complications of atherosclerosis. Microthrombosis could take part in the brain atrophy.

Mean red cell volume: Examination of mean red cell volume confirmed an increased occurrence of macrocytosis in alcohol abusers in values exceeding 100 fl.

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HEALTH PROMOTION IN PRACTICE: ZOOT CAPRI, AN ILLUSTRATION

L. Morose (1) & R. Bryant (2); (1) Alberta Alcohol and Drug Abuse Commission, Edmonton, Alberta, Canada; (2) West-Can Communications, Edmonton, Alberta, Canada.

Zoot Capri, the Magazine, is published three times a year by AADAC. The magazine, distributed by mail, is aimed at Alberta Youth aged 12 to 17 years. The magazine provides a compelling means to communicate directly with youth about issues relevant to them, and provides an opportunity to present information on alcohol and drug use.

Zoot Capri is a critical component of the AADAC program which encourages young people to develop healthy life-styles which preclude the use of alcohol and drugs.

The themes of responsible independence, peer influence, role modelling and social success, which guide the AADAC media campaign, are highlighted in the magazine as critical developmental issues. A review of the

current issue of Zoot Capri illustrates how this is accomplished in an entertaining and informative manner.

Research and evaluation has been an integral part of the development and refinement of the magazine. Research results obtained through interviews with Alberta teenagers indicate they view Zoot Capri as a credible and relevant publication.

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HEALTH SERVICES USE PATTERNS OF MALE ALCOHOLICS: IMPLICATIONS FOR PRIMARY CARE

K. Magruder-Habib, J.W. Luckey, V. Mikow, H. Feifs & P.M. Barron; V.A. Medical Center and Duke University Medical Center, Durham, North Carolina, U.S.A.; University of North Carolina, Chapel Hill, North Carolina, U.S.A.

The health problems created by excessive consumption of alcohol are a major drain on health care systems of the world. Current estimates attribute 12% of U.S. health care expenditures to alcohol abuse. Several factors make these estimates of excess utilization extremely conservative. Most studies have been undertaken in pre-paid settings and many have relied on diagnosis as the sole criterion for alcoholism.

The present research, undertaken within the Veterans Administration medical system, compared health service utilization patterns of 209 alcoholic veterans with 209 non-alcoholics (matched for age and race), over a five year period of time. Identification of the alcoholic group was not based on diagnosis but rather on a

screening process which included consecutive in-patient admissions over a three month period. (Only 36% of the positively screened group carried an alcoholism diagnosis). Both in-patient and out-patient care were considered. In addition, a combined mail/telephone survey was undertaken to provide an estimate of out-of-system (non-VA) utilization. Alcoholics used services at approximately 1.3 times the rate of their non-alcoholic counterparts. More detailed information on diagnostic tests and laboratory procedures, surgical and non-surgical procedures, in-patient days, and total costs will also be reported.

Applications for screening, early recognition, and intervention in the primary health care setting are discussed.

HEPATITIS B IN HOSPITALS FOR THE ALCOHOLICS

Yamauchi, M. Ishibashi, H. Abe, K. Tanikawa (1) & Yokoyama (2); (1) Department of Internal Medicine, Kumamoto University School of Medicine, Fukuoka, Japan; (2) Kaisei Hospital, Fukuoka, Japan.

The overall carrier rate of hepatitis B surface antigen (HBsAg) of 2.0-2.5 percent among the population in the southern area (Fukuoka) of Japan is similar to that found in Japan.

In patients with alcoholic hepatitis and cirrhosis is manifested by fewer circulating T lymphocytes and a

dampened lymphocyte response to phytohemagglutinin and other mitogens.

Patients in hospitals for alcoholics were screened for a marker of hepatitis B virus infection from 1981 to 1984. Of 1163 patients, 94 (8.1 percent) patients were positive for HBsAg and 25 per cent of these were hepatitis e antigen positive. Nine cases of HBsAg positive patients were transient infections and 2 cases developed acute viral hepatitis.

The prevalence of HBsAg among alcoholics is significantly higher than the 2.0-2.5 per cent found in the population of Japan. It is speculated that the higher carrier rate of HBsAg in alcoholics was caused by the environmental factors, patterns of life and the depressed immunological competence by drinking alcohol.

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AN HISTORIC AND PROPHETIC PERSPECTIVE

J.K. Lawton, ICF-PADA, London, England.

Secular and religious leaders have been responding to the social and medical consequences of addiction for more than 150 years.

The leading temperance workers were not illiterate cranks. They came from a multi-disciplinary background and worked for prevention through education and enlightenment. Therapists used many skills and there was no dichotomy between prevention and therapy.

Belief in the effectiveness of legislation was tempered

y an emphasis on social and personal example in use, abuse and abstinence.

There was a strong belief in the dawn of a new age, for which secular and religious activists would form a philosophical prophetic base.

We need clearer definitions of both terms and objectives. Learning from the past, we must modify present practice and adopt new perspectives for the future.

Response to contemporary addiction has led to many experiments in control, protection and prevention policies, but international ecumenical co-operation has not been particularly effective.

A new, widely based, imaginative challenge is required for a rediscovery of prophecy.

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HISTORICAL PATTERNS: DISEASES AND ALCOHOL CONSUMPTION RATES - ONTARIO, 1940-1980

Wallington & L. Morrow, School of Nursing, Lakehead University, Thunder Bay, Ontario, Canada.

Medical research over the past two decades has increased our knowledge of the effect of alcohol consumption on human biology. Several diseases have been clearly linked with rates of alcohol consumption. This study is an examination of three sets of statistics over the past 40 years for the purpose of identifying a more complete range of diseases which

share a common pattern of increase/decrease with alcohol consumption rates.

Statistical data examined will include mortality rates, hospital morbidity rates, and control and sale of alcoholic beverages in Canada. Presentation will include a recent review of alcohol consumption and illness.

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HORMONAL COMPONENT IN REGULATION OF ENDOGENOUS ETHANOL LEVELS IN THE ORGANISM

Y.A. Tarasov, Y.M. Ostrovsky, V.I. Satanovskaya, S.N. Shishkin, L.I. Nefedov, P.S. Pronko, B.I. Gorenstein & A.W. Jones; Division of Metabolic Regulation, BSSR Academy of Sciences, Grodno, U.S.S.R.; Karolinska Institute, Stockholm, Sweden.

Alcohol motivation in rats and mice is in inverse relationship to the level of endogenous ethanol (EE) in the organism. The sources of EE are substrates (pyruvate, amino acids, etc.); the metabolism of which is under complex hormonal control.

We studied the effect of adrenalectomy in rats on the level of EE and a number of its precursors and the activities of the enzymes involved in the production and metabolism of acetaldehyde and ethanol. The level of EE were found to decrease in the liver, kidneys and brain, but not in the blood. The liver alcohol dehydrogenase activity was unchanged both with ethanol and acetaldehyde as substrates. The liver mitochondrial low Km aldehyde dehydrogenase activity

as diminished. After adrenalectomy, the activity of pyruvate dehydrogenase lowered, the levels of non-essential amino acids, the major portion of which were direct source of pyruvate, decreased and the concentrations of threonine and phosphoethanolamine precursors of acetadehyde itself - changed.

Thus, hormonal regulation of EE metabolism is mediated through the acetaldehyde precursors. In terms of the sources of EE in the organism, the sensitivity of its levels to hormones may be substantiated by the generation of EE by animal tissues but not by intestinal micro-flora.

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THE IMPACT OF TWO-DAY JAIL SENTENCES FOR DRUNK DRIVERS IN HENNEPIN COUNTY, MINNESOTA

S. Levy, U.S. Department of Transportation,
Washington, DC, U.S.A.

Analysis of the effect of a two-day jail sentence imposed voluntarily by municipal judges in Hennepin County, Minnesota is reported from both an administrative and impact point of view. The degree of compliance despite the large turnover of judges is examined in addition to the number of DWI trials held. The duration of the processing time required from arrest to sentencing of the DWI and the impact of increased convictions on the jail system is analyzed. Cash reduction is examined within Hennepin County and compared to Ramsey County where a similar policy did not exist during the time period considered in order to

determine if mandatory jail sentencing did in fact reduce crashes.

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THE IMPAIRED DRIVER COURSE IN CAMPBELL RIVER

G. W. Small, J. C. Martin & R. Bey, Alcohol and Drug Programs, Ministry of Health, Campbell River, British Columbia, Canada.

Between April, 1983 and December 31, 1984, 539 persons in Campbell River area were convicted under sections of the Criminal Code of Canada pertinent to operating a motor vehicle while ability to do so was impaired by alcohol or a drug, or refusing to provide a breath sample on request of a police officer.

This study examines a unique program, conducted jointly by a judge of the Provincial Court, the Probation Services of the provincial Attorney-General, and the out-patient services of Alcohol and Drug Programs, provincial Ministry of Health, in a community of about thirty thousand people in British Columbia, Canada.

The aim of the program was to acquaint those convicted with some concept of the meaning of their offence and to discourage recidivism.

Statistical data on the program is presented and possibilities for extension to other jurisdictions are discussed.

IMPLICATIONS OF THE "LEARNED HELPLESSNESS" MODEL FOR ALCOHOL TREATMENT

R. Griffith & K. McClellan, Tri-County Employee Assistance Program, Akron, Ohio, U.S.A.

Martin E. P. Seligman's description of "learned helplessness" in mental health depression is remarkably similar to the chemically induced depression that is created by alcoholism. Seligman's recommended antidote is also remarkably similar to the program of Alcoholics Anonymous. By carefully examining (1) the similarities between "learned helplessness" and alcohol induced problems, and (2) introducing into this model what is known about ego defense mechanisms, it is possible to derive some clear implications for improved treatment strategies for dealing with alcohol induced problems.

"Learned helplessness" is induced when a subject comes to believe that behavioural outcomes are unrelated to cognitive actions. Cause-effect outcomes must be established or reinforced before the subject experiencing "learned helplessness" will reinstate adaptive behaviour.

Confrontive strategies for treating the cognitive distortions that characterize "learned helplessness" are contra-indicated. Instead, it is more effective to build on areas of competence to enhance the subject's cognitive structure and to strengthen it.

IMPLICATIONS - WHAT DO WE DO NEXT ?

J. Skirrow, Alberta Alcohol and Drug Abuse Commission,
Edmonton, Alberta, Canada.

Optimally, delegates arrive at the end of a conference with a creative mix of reflection and anticipation. This session is intended to further stimulate this process.

It begins with an overview of each of the broad themes covered during the Congress: treatment, prevention, and research in the areas of alcohol and drug abuse. But the focus is not on review; rather, it centers on developing a perspective on addictions that will lead to constructive future action.

One important aspect is to identify high priority areas (for example, promising new treatment or education approaches, emerging problems with a particular drug, enforcement or control issues within a country) which are likely to be of immediate concern to the addictions community.

A second thrust is to develop a longer term, international perspective on substance abuse issues where the emphasis lies on policy development. The objective is to increase the understanding and sensitivity required to meet such important challenges as reconciling the many competing interests associated with the world-wide marketing of tobacco, alcohol, and pharmaceuticals and of dealing more effectively with the distribution of illegal drugs.

he third task is to help individual delegates recognize the connections between the alcohol and drug abuse problems that they see in their own locality and the drug issues reported in far-off parts of the globe.

y encouraging such a broad, forward-looking perspective, the Congress can contribute to the international dialogue and cooperation needed to establish realistic policies to reduce the abuse and misuse of drugs while preserving the legitimate interests of the many stakeholders in this area.

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INCEST AMONG WOMEN IN RECOVERY FROM ALCOHOLISM AND DRUG DEPENDENCY: CORRELATION AND IMPLICATION FOR TREATMENT

Schaefer & S. Evans, Minneapolis, Minnesota, U.S.A.

his paper will examine the relationship between incest and alcohol/drug dependency among women in recovery. After reviewing the literature in this area, the authors will present original research based on a study of 100 alcohol/drug dependent women. Information regarding rates of incest within this population will be described as well as information regarding age of onset, frequency, duration and sex of the offender. Implications for alcohol/drug treatment programs will be discussed.

INDIVIDUAL SENSITIVITY TO ALCOHOL AS A BASIS FOR PROGNOSING GENERAL CLINICAL REGULARITIES OF ALCOHOLISM

N.N. Ivanetz, All-Union Research Institute of General and Forensic Psychiatry, Kropotkinsky, Moscow, U.S.S.R.

Clinical observations suggest the existence of different types of development, course and outcome of alcoholism. This depends to a great extent on the premorbid personality traits of the patients, peculiarities of their metabolic processes, and constitutional impairment of the activity of enzymes underlying the formation of pathological craving for alcohol.

The results of the present study suggest that alcoholism takes a fairly benign course in patients with sthenic character traits. In these cases the formation of morbid symptoms proceeds slowly, the disease takes a prolonged course, and the patients exhibit good social adaptation and appeal for medical care at a later period of life as compared with patients with other character traits.

It was also found that the activity of DBH-enzyme (known as an indicator of dopamine synthesis) was increased in the patients under discussion and in normal subjects with sthenic personality traits.

INDIVIDUAL VARIABILITY IN ALCOHOL TASTE THRESHOLD ESTIMATION

J. Coleman & H. G. Tittmar, Department of Psychology, University of Ulster, Newtownabbey, North Ireland.

In his work on the classification of substances into either poisons or nutritional substances, Richter's work, when using alcohol as the test substance, proved to be not only selective, but also restrictive. Restrictive, in the sense that he produced ideal data from an individual rat, and not an averaged result; selective, because those rats that did not conform to the ideal pattern had their results disregarded.

Replicating Richter's work on alcohol taste threshold estimation, and utilizing all the obtained data, his results were confirmed in part. Further examination of the obtained data confirms a strong inter-individual variation noted by Richter.

According to taste threshold estimates for alcohol, rats were divided into light, moderate or heavy drinkers. Independent and blind discriminants by judges gave support to this classification.

The findings are discussed as being a genotypic characteristic, and particular reference to tissue sensitivity is made.

INTEGRATION OF ALCOHOL AND DRUG EDUCATION IN GENERAL HEALTH EDUCATION

W.F.M. de Haes, Health Education Unit, Municipal Health Department, Rotterdam, The Netherlands.

For people involved in alcohol and/or drug education it seems to be an accepted philosophy that these programs can better be combined into one "alcohol and drug education program".

It is one step further to defend the point of view that programs for school children have to form part of a more general health education curriculum for these pupils. According to this point of view, these topics can get attention in the context of "risky behaviour", "risky substances" or "dependency behaviour", in which "smoking and abuse of medicines" can also be discussed.

The next step is to say that the point of view should not be "prevention of trouble and illness", but "promotion of health and wellbeing". This means a move from "health education" towards "health promotion".

Although educationists might agree on the previous points, it is clear that politicians, parents, school-directors and the general public often prefer clear "drug education" and reject the idea of a "balanced approach". This often means that they prefer education programs given by police officers.

What is the solution we can give to this problem of disagreement between the professional educators and many people belonging to their "target group"?

INTERACTION BETWEEN METHAMPHETAMINE AND ALCOHOL

. Komura, K. Yoshimoto & Y. Irizawa, Department of Legal Medicine, Kyoto Prefectural University of Medicine, Kyoto, Japan.

In Japan most medical examiners and social workers have become alarmed over the methamphetamine abuse that gives rise to the social problems in recent years.

We have quantified the concentration of methamphetamine in blood and tissues of six autopsy cases and the concentration of alcohol in urine. Also, we carried out the survey on the methamphetamine suspects to explain the interesting drinking pattern associated with methamphetamine intake.

There were six autopsy cases of lethal methamphetamine intoxication (5 males, aged 19-38, 1 female, aged 25) in Kyoto prefecture within six years. The maximum and minimum concentrations of methamphetamine in blood were 2.2 $\mu\text{g/ml}$ and 1.9 $\mu\text{g/ml}$, respectively. The range of methamphetamine concentration in liver was 24.4-98.2 $\mu\text{g/g}$ (mean 51.5 $\mu\text{g/g}$). Blood alcohol was not detected in all six autopsy cases. The case that detected methamphetamine and alcohol simultaneously was not recognized. We recognized that methamphetamine abusers did not intake alcohol during methamphetamine intake.

The methamphetamine-alcohol surveys based on the questionnaires were conducted in 1984. Among the positive-methamphetamine subjects who had methamphetamine detected in their urine, the percent of non-drinking associated with methamphetamine intake was 3.3% in males and 57.1% in females. Among the

positive- and negative-methamphetamine subjects, the percent of alcohol detection at the same time was 17.6% and 27.4%, respectively. On the survey of daily drinking patterns among the positive-methamphetamine subjects, the percent of abstainers was 22.3%. From this survey, there was less drinking associated with methamphetamine intake among the methamphetamine suspects.

In conclusion, the methamphetamine intake seems to be related to the decrease in drinking alcohol.

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INTERCULTURAL RESEARCH ON DRINKING BETWEEN JAPANESE-AMERICAN AND MAIN-LAND JAPANESE

T. Sasaki, Shiga University of Medical Science, Otsu Japan.

Two surveys were conducted through May to September in 1978 and 1981 with Japanese-Americans living in Hawaii, the West Coast, the Middle East, and New York. Questionnaires were written in Japanese and English for both surveys. The response rate was 23% with 388 male and 299 female respondents. A control group of residents in the Tokyo Metro District was established in 1981 using the same questionnaires as the Japanese-American group.

The following results will be elaborated on: (1) drinking patterns (frequency, dose, preferred drinks, place, age of onset of drinking pattern, etc.); (2) the characteristic drinking custom (Banshaku) versus party drinking (Enkai) between First generation (Issei)

second generation (Nisei), and Third generation (Sansei) Japanese-Americans, and between males and females.

Drinking customs characteristic to mainland Japanese were most prominent in Isseis, followed by Niseis and Sanseis respectively. Both mainland males and Japanese-American males had higher alcohol intake patterns than did their female counterparts.

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INTERNATIONAL AND NATIONAL CONTROL POLICIES - IMPACT OF INTERNATIONAL CONTROL SYSTEMS ON REGIONAL AND NATIONAL POLICIES

R. Yatim, Ministry of Information, Angkasapuri, Kuala Lumpur, Malaysia.

The paper will introduce the region, Asia-Pacific, and describe briefly the background of the region particularly in relation to the substance abuse problem.

The paper will then identify the major issues and problems faced from a regional and national perspective. The paper will compare information on "needs" or requirements as described by the International Control Instruments - The Single Convention on Narcotic Drugs and the 1971 Psychotropic Convention - with those being practiced by selected countries in the region. Issues pertaining to the practical application of these International Treaties will also be discussed.

The strengths and weaknesses of these treaties, and the impact and applicability in the regional and national framework will be reviewed.

Some suggestions for improvement will be made.

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INTERNATIONAL CONVENTIONS ON NARCOTICS AND PSYCHOTROPICS - SHOULD THEIR SEPARATION BE ENDED

W. Wieniawski, Institute of Drug Research and Control, Warsaw, Poland.

The international legal system of abuse-producing substances control has evolved over a number of decades and inevitably contains some inconsistencies. It attempts to regulate the production and use of medically valuable materials with the aim of preventing their abusive employment. Simultaneously, it attempts to stop the abuse of illegally produced materials, which is a different and more complex task.

The legal framework of the system consists at present of the Single Convention on Narcotic Drugs of 1961 (amended in 1973) and the Psychotropic Convention of 1972. Although similar in many aspects, both conventions are sufficiently different to render their unified application at the national level difficult. Such difficulties are discussed in some detail and their source traced. A continuous separation of both these instruments is detrimental for the implementing agencies, and several proposals are made on what lines their merger may be attempted, taking into account the

proposed new international treaty on the fight against illegal traffic.

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INTERNATIONAL PROJECT ON ADOLESCENT DRINKING

J.K. Ahlström & T.H. Harford, Finnish Foundation for Alcohol Studies, National Institute on Alcohol and Alcoholism, Finland.

The consumption of alcohol has risen in the industrialized countries since World War II and has also increased in most countries of the Third World. In the early 1970's the harm wrought by young people's drinking came in for greater notice. Country after country began to use the survey method to collect data which would either support or refute the alarming reports of the prevalence of young people's drinking in the press.

The goals of the International Project on Adolescent Drinking are to determine the extent, nature and development of adolescent alcohol use, and the cultural and socioeconomic factors which influence alcohol use by the adolescent in a variety of cultures. The purpose is to prepare several country reports with common format and an international comparative analysis. In order to develop methods of preventing the adverse health consequences of problematic alcohol use by young people we need information about why and how young people drink, how young people behave when drunk and the type of problems and extent of problems associated with youth drinking. Variations between countries provide the "natural experiments" which allow

the influence of different variables in the interactions to be analyzed.

The project has contacted countries known to have already available or collected data on young people's drinking and alcohol-related problems and researchers who are interested in youth studies. The goal is that the participating countries would represent both developed and developing countries with different cultures, in order to fully benefit of the comparative study design.

The paper also gives an overview of the preliminary concluding results.

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INTERVENTION IN THE TOBACCO HABITS OF RURAL INDIAN POPULATION

M.B. Aghi & F. Mehta, Dental Research Unit, TIFR, Bombay, India.

Oral cancer, a direct result of smoking, chewing, rubbing and plugging of tobacco is fast gaining grounds in selected parts of India. In a house to house screening survey, subjects were selected from rural populations in three areas of India. They were interviewed for their tobacco habits and their mouth were examined by trained dentists six times over a five year period with a follow up of 97% chewers and smokers. They were educated to quit, using personal communication and mass media.

After five years 9%, 17% and 13% respectively have quit their habits. During the same period 28%, 49% and 20% respectively have significantly reduced their tobacco habits.

The stoppage and reduction is higher among chewers compared to smokers and higher among women compared to men. In two areas there is a significant reduction in oral precancerous lesions.

The study demonstrates that it is possible to induce changes in the tobacco habits of a rural population through well planned and developed user based and tested educational efforts.

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L'INTERVENTION THERAPUTIQUE EN GERONTOXICOMANIE: UNE EXPERIENCE DE CROISSANCE DANS CONTEXTE MULTIGENERATIONNEL

G. Vermette, Centre D'Accueil Domrémy, Montréal, Quebec, Canada.

Depuis 1976, le Centre d'Accueil Domrémy-Montréal offre des services professionnels d'orientation psychosociale à une clientèle alcoolique et toxicomanie. L'organisation des services cliniques est de caractère multimodal. Ce qui permet une meilleure capacité de répondre à des besoins différents de clientèles différents.

Une des unités internes du Centre de Réadaptation a développé une expertise originale en rapport au traitement en Gérotoxicomanie. Les personnes âgées y sont référées dans un contexte multigénérationnel.

Jeunes et vieux se cotoient. Ils s'apportent mutuellement une meilleure compréhension de leur réalité respective et des stratégies d'action pour mieux s'y adapter. Les interventions thérapeutiques sont offertes dans le cadre d'une programmation clinique qui a pour principaux objectifs: (1) De faire vivre une expérience positive de socialisation. (2) De développer une confiance en soi et un sentiment de compétence. (3) De favoriser la réorganisation du fonctionnement de la personne, en utilisant d'une façon créatrice ses énergies résiduelles.

En plus de décrire le contenu et le fonctionnement de ce programme, la conférence abordera les responsabilités particulières des intervenants en toxicomanie qui travaillent auprès d'une clientèle. Finalement certaines orientations seront discutées compte tenu du vieillissement de notre société d'ici la fin de ce siècle.

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INTRODUCTION OF NARCOTIC ANTAGONIST TREATMENT IN A METHADONE TREATMENT PROGRAM

J.F. Perzel, Jr. & S.F. Neshin, Jersey Shore Addiction Services, Asbury Park, New Jersey, U.S.A.

For over three decades the idea of antagonist treatment of opiate addicts has been discussed and researched. In the past ten years, the narcotic antagonist naltrexone has been taken by several thousand patients in research, university and private psychiatric facilities. In November 1984, naltrexone (Trexan) gained the approval of the F.D.A. and as such was

available for use in a wider range of settings.

The authors, both of whom have had several years of experience using naltrexone, will present data of the first year's experience of introducing antagonist treatment into a methadone treatment program. Results will include comparisons of methadone maintained patients versus "street addicts", males versus females, patients attending support groups versus non-group patients and patients receiving ancillary medications and/or therapy versus those who are not. Initial resistance to antagonist treatment and difficulties in implementation will also be discussed.

The advisability of utilizing antagonist treatment in uncontrolled settings will also be discussed and recommendations regarding the proper use of antagonist treatment in these settings will be offered.

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INVOLVEMENT OF YOUTH IN ALCOHOL EDUCATION BY MEANS OF THE TWO-STEP MODEL

Endal, International Good Templar Youth Federation (IGTYF), Oslo, Norway.

"Participation, development and peace" is the motto for the International Youth Year, 1985. Is it possible to apply the principle of youth participation in programs for alcohol education?

The conclusion of this paper is that it really is possible to involve young people in such programs. This is built on experience from several European

countries where the national IGTYP branches have run education programs for students from 14-18 years of age, built on the two-step model: 1-3 students from each class participate in a 4-7 day seminar and return to their classmates with a discussion program on alcohol and drugs.

This model has been tried in Sweden, Norway, Iceland and Switzerland, summing up to 1150 seminars with more than 30,000 participants and follow-up activities for 800,000 to 900,000 students.

The paper gives an overview of the philosophy behind the project, the education methods, curriculum as well as results gained so far. It also points out the crucial points in the program, such as selection of participants and follow-up activities. Finally, it includes a discussion on why the heart, and not only the brain, should be engaged in alcohol education programs.

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"IT'S JUST YOUR NERVES" - DEVELOPMENT, IMPLEMENTATION AND EVALUATION

K. Madden (1) & D. Davison (2); (1) Health and Welfare Canada, Ottawa, Ontario, Canada; (2) Health and Welfare Canada, Edmonton, Alberta, Canada.

"It's Just Your Nerves" represents a unique community involvement approach to the special problems of women and addictions. Focusing on women's use of alcohol and minor tranquillizers, it is designed for use by lay people and professionals in group settings. Issue

elated to substance use are presented in a context that includes: recognition of predominant occupations for women, role expectations for women, medical perceptions of women's health complaints and options for treatment.

Development of this resource involved women from various backgrounds related to the topic areas. Regional offices played a key role in implementation of the program. Information sessions generally preceded training sessions for interested women who would then facilitate discussions in their communities.

Evaluations were conducted to assess the distribution and use of the resource. They reported on extent of use, types of groups receiving presentations/workshops, age of participants, employment status, etc.

The women who were trained liked the resource and found it flexible. In 60% of the sessions, participants reported problems with alcohol or tranquilizers.

Problems identified as a result of the evaluation included lack of supportive networks and lack of funds to assist in organizing the workshops. Some of these have been addressed through the use of newsletters and follow-up training sessions.

The resource has been well received, and the format has provided a model for use by other agencies.

KHAT ABUSE: AN INCREASINGLY WORRYING ISSUE

P. Nencini, Institute of Medical Pharmacology,
University of Rome, Rome, Italy.

Consumed by the inhabitants of Arabia and the Horn of Africa for centuries, khat (*Catha edulis* Forsk) is one of the last naturally occurring substances with psychotropic actions to be studied systematically. This sudden interest is probably explained by a change in the social attitude to khat. Once fully sanctioned socially, today khat is considered a drug of abuse and its spreading consumption causes increasing concern. Social and economic drawbacks of khat consumption are obvious; dangers of health are as yet less evident.

The paper reports clinical studies showing that in psychological, physiological, endocrine effects and induction of tolerance, khat resembles amphetamine. But, even though cathinone shows a potency of action very close to that of amphetamine, chronic or acute administration of khat induces severe side effects clearly due to an amphetamine-like mechanism, in very few cases.

This discrepancy may be explained either by the bulk volume of khat, which limits absorption of its active principles, or substances in khat, capable of antagonizing the pharmacological activity of phenylalkylamine compounds.

Given the relatively low toxicity of khat, its sudden diffusion may be more due to the changing life-style in the emerging countries than to the addictive properties

of khat. A radical ban on khat could even encourage the spread of more dangerous drugs of abuse.

Therapeutic use of khat active principles seems premature. However, in view of the strong analgesic activity of cathinone, partially mediated by opiate mechanisms and reinforced by appropriate environmental stimuli, this drug could be a candidate for clinical trials.

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ILICIT DRUG ABUSE AND INCREASE OF MEAN AGE OF FIRST USE OF OPIATES

F. Cancelloti, M. Boffoli, P. Fuligni (1) & F. Mariani (2); (1) Local Health Unit (U.S.L. 3), Versilia, Italy; (2) Institute of Clinical Physiology, National Research Council, Pisa, Italy.

The analysis of data collected by the Treatment Service for Drug Abusers in Viareggio, Italy, showed an increase in the mean age of first use of opiates in the subjects under the care of public services from 1978 to 1984. It raised some perplexities on the selection of examined cases. So, we comparatively tested 34 subjects who were arrested by police and never treated by health services, in the years 1982-1984. The paper describes their toxicological anamnesis and points out a long period of licit drugs (such as benzodiazephenes) and alcohol abuse, which precedes first use of opiates.

THE LONG-TERM TRAFFIC SAFETY IMPACT OF ALCOHOL ABUSE TREATMENT VERSUS LICENSE SUSPENSION FOR DUI

M.W. Perrine & D. Sadler, Boston University School of Public Health, Boston, Massachusetts, U.S.A.

An earlier study assessed the first-year effectiveness of a pilot, 12-month drinking driver program versus 12-month license suspension. The present study is a replication, using the same subjects and a 4-year follow-up period. Repeat driving-under-the-influence (DUI) offenders either received a license suspension or avoided it by participating in an alcohol treatment program.

Results indicate that the treatment group had significantly fewer (9%) alcohol-related convictions in the subsequent 4 years than the suspended drivers, but no significant difference in alcohol-related accidents was found. In terms of nonalcohol-related accidents and convictions, the 4-year rates for the suspended drivers were significantly lower (70%) than for drivers receiving alcohol treatment. Regarding total accidents (i.e., combined alcohol- and nonalcohol-related accidents), alcohol treatment drivers had a significantly higher (30%) 4-year rate than suspended drivers. Thus, in terms of overall traffic safety impact, license suspension was a more effective countermeasure than its alternative - the alcohol treatment program.

DUI offenders represent a greater than average traffic safety risk because of their involvement in alcohol-related accidents. License suspension provides some degree of compensation for this greater risk in the form of reductions in nonalcohol-related accidents and convictions, but alcohol treatment in lieu of license suspension demonstrated no such compensatory benefits. However, neither license suspension nor alcohol treatment appears to have much impact on DUI recidivism. These findings indicate that some means other than waiving the license suspension for repeat DUI offenders should be used as an inducement for participating in alcohol treatment.

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"MARIJUANA AS MOTHER": A STUDY OF SEMANTIC CHANGES IN THE INNER WORLD OF YOUNG POLYDRUG ADDICTS ACCOMPANYING SUCCESSFUL TREATMENT IN A DRUG REHABILITATION COMMUNITY

N.B. Boyd, Bethesda, Maryland, U.S.A.

What subjective changes accompany the removal of the addictive symptom in recovering addicts, and are such changes a necessary correlate of behaviour change deserving of a primary focus in treatment?

This study sought to comprehend the addict in terms of his own phenomenal world by examining changes in the connotative meanings of such concepts as Self, Ideal Self, Mother, Father, and Society, as well as in inferred identifications with significant others, and locus of control over the course of treatment.

The rationale was that the characteristic emptiness, craving and dependence of the addict were related to defective identifications. Effective treatment consequently should include changes in meanings and relations to internalized objects as well as change in behaviour. Subjects were adolescent, polydrug addicts at Crossroads, a therapeutic community in Fairfax, Virginia, an affluent suburb of Washington, D.C. Comparison of scores from the beginning and final phases of treatment, through the analysis of variance, revealed differences in connotative meaning, identification, and locus of control. These were attributed to the treatment program (numerous significant correlations were also found among the 35 variables). The study has theoretical and practical implications for the etiology and treatment of addiction.

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MARKET RESEARCH ON ALCOHOL ATTITUDES AND DRUNK DRIVING

C.K. Atkin & R. Houghton-Larsen, Department of Communication, Michigan State University, East Lansing, Michigan, U.S.A.

Many organizations are attempting to undertake public information campaigns to combat alcohol abuse and drunk driving, but many of these educational efforts are unsuccessful because of poor campaign design. In an attempt to provide a more sophisticated approach to the creation and dissemination of effective messages through the mass media, this research project follows the guidelines of social marketing procedures by conducting formative evaluation surveys of target audiences.

Four survey investigations were carried out with samples totalling almost 2,000 residents of the state of Michigan to measure a wide variety of beliefs, values, opinions, perceptions, knowledge, communication patterns, social influences, behaviours, and mass media usage relating to alcohol, drinking and drunk driving. The results allow a detailed assessment of current orientations that can serve as the basis for selecting the most efficient channels of communication and identifying the most effective themes and appeals to present to various subgroups of the public. The sampling focused on teenagers and young adults.

For example, the survey focusing on drunk driving shows that people tend to hold appropriate beliefs (e.g., they overestimate the chances of auto crashes and police apprehension) and attitudes (e.g., they strongly disapprove of drunk drivers), but continue to drive after drinking. This suggests that campaigns aim at motivating the audience to carry out behaviours consistent with predispositions by highlighting the negative outcomes (e.g., severity of injury or amount of costs associated with arrest) rather than seeking to increase the perceived probability of the likelihood of these consequences, and by making the disapproving attitudes more salient to drinkers.

MATERNAL ETHANOL CONSUMPTION AND LEVELS OF ETHANOL IN BREAST MILK

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The ill effects of maternal consumption of ethanol on the fetus has been well documented. Injury to the fetus through the passage of alcohol to the placenta may be severe enough to induce fetal alcohol syndrome. The effect of alcohol in breast milk has not been well studied. It has been a common practice for health professionals to recommend to breast-feeding mothers the consumption of beer or wine to precipitate the production of milk and aid the breast-feeding process.

This study was an attempt to document the amount of alcohol that appears in breast milk after the consumption of alcohol by the mother. A total of 61.44 grams of ethanol was consumed by a breast-feeding mother over a three and one-half hour period of time. Breast milk was obtained at 30 minute intervals by use of a breast pump and the samples were analyzed to determine the amount of alcohol in the breast milk.

There are very few studies in the literature about the correlation of the consumption of alcohol and the amount of alcohol in the breast milk. It is necessary to determine these levels before any effect on the nursing infant can be determined. This study will report the findings, and implications for future research in this area.

A MEDIA BASED PREVENTION PROGRAM FOR ADOLESCENTS

R. Durrant & L. Morose, Alberta Alcohol and Drug Abuse Commission, Edmonton, Alberta, Canada.

A large scale prevention program has been running in the province of Alberta for the past four years. The goal of the program is to reduce alcohol problems among adolescents. High profile television and radio advertising is used along with newspaper advertising, posters, school materials, a specially produced teen magazine titled Zoot Capri, and a system of funding for supportive community projects.

The program is notable because it utilizes the best available technology and expertise of the advertising, communications, and social marketing fields, and because there is extensive research indicating that it succeeds at the difficult task of communicating with the highly sceptical teenage audience. Virtually all adolescents in the province of Alberta are aware of the program, and two-thirds of them report that it has helped them personally to deal with the life-style issues the program addresses.

The planning and design of this prevention program will be discussed with emphasis on principles that are transferable to other large or small prevention efforts. The practical issues involved in taking on a major media based communication project, and the vital role of market research in media testing will also be examined. Samples of the program's communications materials will be presented and critiqued.

MEDICAL STUDENTS EDUCATING IN SCHOOLS

P. Nikander (1) & H. Vertio (2); (1) Oy Alko Ab, Helsinki, Finland; (2) National Board of Health, Helsinki, Finland.

One out of every two 14-year olds in Finland has had personal experience with alcohol. The use of alcohol by age 20 is already similar to that of the adult population. According to statistics, there has been no increase in alcohol consumption among the young people in Finland since 1973. The total alcohol consumption during this period has also remained stable relative to the population.

A program for decreasing the harmful effects of alcohol was planned for schools by the mutual efforts of the health care system, the State Alcohol Monopoly, the schools themselves, and the organization of medical students. The purpose of the program was to initiate discussion about alcohol and alcohol-induced damages at the schools and to provide the students with concrete information especially about the physiological effects of alcohol. The program came into practice in the fall of 1982 and it continues till 1986.

Approximately 130 medical students from five different universities, each in a different city, were especially trained to be able to conduct the program. In addition to the training, the medical students were given general literature about alcohol and the support material planned for the program. All the schools in the country were informed that they could invite a medical student to start the discussions about alcohol by calling the medical student organization. The

special target groups of the campaign were 13-14 year olds and their parents. In addition 15-16 year olds were met. Special emphasis was placed on cooperation between the schools, the school health care system, and students.

The demand in the preliminary trials surpassed the supply of medical students. Pupils that were in the 15-16 year old age group were more active than the younger students. It turned out to be more difficult than expected to start a discussion in classes. The fact that a teacher was present in the situation sometimes may have prevented open discussion. The follow-ups and final results of the program are presently being analyzed. The productivity of the program in particular will be estimated.

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META-ANALYSIS OF THE EPIDEMIOLOGICAL RESULTS OF EXISTING LONGITUDINAL STUDIES BY AGE AND SEX: IMPLICATIONS FOR INTERVENTION AND PREVENTION OF ALCOHOL PROBLEMS

J.M. Filmore, Alcohol Research Group, Medical Research Institute of San Francisco, Berkeley, California, U.S.A.

A unique contribution of longitudinal studies to basic epidemiological questions is the possibility of charting the incidence, chronicity and remission of alcohol problems in the life course. While a number of studies in the last 4 decades have presented this information, it is attempted here to bring these scattered facts together from studies in Northern Europe and North America.

Through this means, the question of maturation effects may be challenged by the questions of historical or birth cohort effects. In other words, the variable probabilities of incidence, chronicity and remission in the life course are more thoroughly tested than before.

The findings indicate that both incidence and remission of alcohol problems are high in youth, chronicity of alcohol problems are highest in middle age and both chronicity and incidence decrease with age across birth cohorts born before the turn of the century to the 1950's. Sex differences are discussed as are implications for prevention and intervention.

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"MINI COURSES" - A COMMUNITY EDUCATION PROGRAM TO FACILITATE THE TEAM APPROACH IN DEALING WITH THE PROBLEMS OF CHEMICAL DEPENDENCIES

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The Mini Course was developed as a result of increasing requests for information and assistance with problems related to chemical dependencies.

The course is founded on two basic concepts:

- That there is a social responsibility for alcoholism and other drug problems;
- That some responsibility must be assumed by society for the addicted person's recovery.

By changing attitudes and developing new insights and understanding into alcoholism and other drug-related problems, local communities will be encouraged to do their own programming, utilizing their own resources in a team approach to combat these problems.

The course is an ongoing four and a half day session held at the Saskatchewan Alcoholism Commission and is attended by a cross-section of people from throughout the province and from all strata of society. The course participants leave prepared to act as a part of the team in the areas of prevention, intervention and treatment of alcoholism or other drug-related problems.

The paper discusses at length implementation of the Mini Course, its objectives, techniques used in the training, field trips, evaluation and future plans.

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THE MISSOURI MODEL: A STATEWIDE STRATEGY FOR PREVENTING SUBSTANCE ABUSE AMONG TEENAGERS

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The Missouri Institute for Prevention Services (MIPS) represents a consolidation of previously fragmented prevention efforts targeted to youth. It achieves unprecedented levels of statewide uniformity and consistency in application of prevention strategies, which assure a sound basis for evaluation. Prevention resources are focused on school and community, and involve youth in advisory roles.

Using a comprehensive conceptual framework, the MIPS prevention strategies address issues related to the public health trichotomy of agent, host and environment, with specific emphasis on youth as both subject and actor. Components include well-tested strategies of skills training, affective education and peer-level advocacy for healthful life-styles as exemplified in the highly acclaimed Missouri Teenage Institute on Substance Abuse.

Six regional program offices provide technical assistance, organizational support, coordination of regional teen institutes, community based projects, youth advisory councils, advanced training and advocacy networking. An administrative unit coordinates and evaluates the regional activities. All are operated by community agencies under contract with the Division.

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MODEL FOR QUANTIFYING THE DRUG INVOLVEMENT OF MEDICAL STUDENTS

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Some investigators have proposed the existence of a latent dimension of "drug involvement", implying that most drugs can be arranged along a continuum, such that individuals invariably begin at one end and progress linearly toward the other when they initiate use of a new drug. We have applied a 2-parameter normal item-response model to analyze drug use data reported by 116 freshman medical students (96% of one class), then used

the results to predict changes in their drug use habits over the first 18 months of medical school.

We found strong evidence for the existence of a single latent dimension of "drug involvement" characterizing this sample, and a totally independent sample of 118 freshman medical students. The results of the two analyses suggest that responses to questions about drugs ever used on 5 specific items can be interpreted to define a 6-step model of "drug involvement": (0) no experience; (1) liquor; (2) marijuana; (3) cocaine; (4) psychedelics; and (5) narcotics. All but 11% of the two samples fulfilled the assumptions of this model perfectly, and the exceptions were limited to those at the highest levels who had skipped a single step.

To test the predictive validity of our model with longitudinal data, we compared "drug involvement" status estimated on the first day of school with actual substance use (subsequently assessed at 6-month intervals) during the first 18 months of medical school for the students in the original sample. The response of 92% of the students conformed perfectly; only 8% progressed" to a higher level of drug involvement.

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MOLECULAR GENETICS OF ALCOHOL-METABOLIZING ENZYMES

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Alcohol sensitivity is far more commonly found in Orientals than in Caucasians. It has been suggested that this could be due to the rapid aldehyde formation

by the variant Oriental-type alcohol dehydrogenase (ADH), with high activity, or to the accumulation of acetaldehyde caused by the absence of a mitochondrial aldehyde dehydrogenase (ALDH) in about 50% of Orientals. Structural differences between the wild type ADH1/2 (beta 1 beta 1 isozyme) and the superactive variant ADH2/2 (beta 2 beta 2 isozyme), and between the wild type ALDH1/2 and the catalytically inactive (or less active) variant ALDH2/2 were defined. cDNA's for ADH1 (alpha chain) and ADH2 (beta chain) were cloned, and complete amino acid sequences of these two major ADH isozymes were deduced.

cDNA's for ALDH1 (cytosolic isozyme) and ALDH2 (mitochondrial isozyme) were also cloned and their amino acid sequences were deduced. Chromosomal assignments of these genes were determined; i.e., ADH at chromosome No. 4, ALDH1 at chromosome No. 9, and ALDH2 at chromosome No. 12. From these studies, the molecular differences of ADH2 and ALDH2 in Caucasians and Orientals have been defined at the protein level and at the genomic level. It became possible to identify the genotypes of ADH2 and ALDH2 loci by southern hybridization of the DNA of individuals with synthetic oligo cDNA's that were compatible to the wild type ADH1/2 and ALDH1/2 and to the variant ADH2/2 and ALDH2/2.

These studies open the way to explore the relationship between inheritance of these genes and alcohol sensitivity and/or alcoholism in Caucasians, Orientals, and other ethnic groups.

THE MORPHOLOGIC AND FUNCTIONAL CHANGE OF THE STOMACH ASSOCIATED WITH EXCESS INTAKE OF ALCOHOL

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In order to clarify the effect of excess intake of alcohol for a long period of time on the upper gastrointestinal tract, the UGI endoscopy and gastric secretory study (GA) were performed in patients with alcohol dependence (AD).

Endoscopy of 91 subjects revealed 19 cases of peptic ulcer, 8 of esophageal varices, 13 of resected stomach and 23 of erosive gastritis. The study of the atrophic pattern of gastric mucosa, classified into closed type and open type according to the location of the border between pyloric and fundic gland area revealed that the rate of open type was 62% in AD and 53.8% in healthy control. GA revealed that mean $\pm$ SEM of BAO, MAO, PO, and SPO was 0.79 ± 0.20 mEq/h, 6.06 ± 1.10 mEq/h, 18.81 ± 4.15 tyr.mg/min/hr, and 64.16 ± 1.70 tyr.mg/min/hr respectively.

In summary, we reported that too much alcohol intake over a long period of time was evidenced to be one of the etiologies of a peptic ulcer, and also was evidenced to be the etiology of atrophy of gastric mucosa. In this situation, not only alcohol intake itself, but also the fast life style accompanying alcohol abuse may lead to gastric mucosal damage.

MORTALITY RATE OF ALCOHOLICS IN JAPAN

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The comparison of mortality rates between the general population and the population of those with mental disorders, including alcoholics, was made using the vital statistics during the period from 1950 to 1978 in Japan.

The mortality rates of the whole population and the population of those with mental disorders decreased yearly for males. However, the rates of alcoholism and alcoholic psychosis for males were increased. The total number of male alcoholic deaths was 209 in 1950 and 698 in 1978. The corresponding death rate per 100,000 population was 0.5 and 1.2, respectively. Evidently, the latter is 2.4 times as high as the former.

The same tendency was seen in the female population.

Mean ages of death for affective psychoses as well as schizophrenia were increasing year after year like the expectation of life of the whole population. However, the mean age of death for alcoholics has almost remained constant or rather somewhat decreased. Mean ages of death were 50 years for males and 48 years for females.

The alcohol consumption per person per year was increased with the year. The correlation coefficient

between the alcohol consumption and mortality rate of alcoholics is statistically significant.

Not only in chronological data, but in geographical as well, it was found that there was a strong association between the death rate of alcoholics and alcohol consumption.

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A MULTI-AGENCY APPROACH TO DEALING WITH ALCOHOL ABUSE AMONG INDIVIDUALS WITH MENTAL HANDICAPS

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A commonly accepted prevalence for problem drinking in the general population is 10%. Therefore, when a substantially greater frequency was identified among persons with mental handicaps a potentially major problem to their successful community integration was recognized.

This paper outlines the process by which a number of interested professional agencies determined the general nature and extent of the problem, and developed objectives and strategies to deal with various aspects of it. Preliminary estimates of prevalence will be presented. Possible research projects, intervention, prevention and treatment strategies, and procedures for the utilization of community resources will also be discussed.

MUST ALCOHOL EDUCATION PROGRAMS ALWAYS BE SERIOUS - AND EVEN BORING ?

D. Endal, International Good Templar Youth Federation (IGTYF), Oslo, Norway.

The setting for alcohol education programs often tends to be as follows: formal, serious, intellectual, presenting sad consequences of excessive drinking. Rather gloomy!

On the other hand, young people meet informal alcohol "education" in their daily social life. Here, alcohol is presented in a totally different setting: Parties, singing, dancing, girls meet boys and boys meet girls (very often with the "help" of alcohol), you see famous movie stars drinking in beautiful surroundings and most people joking about their drinking habits.

No doubt a favorable setting for learning and shaping attitudes.

- Is it possible to make an alcohol education program more entertaining than expensive video shows or a Saturday night party ?
- Is it possible to use music and theatre as education methods, instead of talking ?
- Is it possible to make young people laugh at their own drinking habits ?
- Is it possible to get several minutes of applause for an alcohol education program telling 17 year old kids that their drinking habits are slightly foolish ?

This paper concludes that the answer is "yes" to all these questions, based on the experience with the music

and theatre group KOLON. For five years now the group has toured with their three hour program in Norwegian high schools, performing for more than 95,000 students in more than 550 shows.

The paper describes the structure of the Kolon program, its contents and methods, as well as comments from students and school authorities.

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THE "N.A.D.I.S. CONCEPT" MANUAL

P. Weel & L. Rosell, North Island Alcohol and Drug Education-Information Society, Campbell River, British Columbia, Canada.

The "N.A.D.I.S CONCEPT" Manual is intended as a practical, comprehensive package on Drug Education for anyone concerned with the welfare of their community. As a Prevention Program, its purpose is to reduce the further incident of problems associated with alcohol and other drug abuse.

The package provides detailed material which will enable willing persons to create an economical prevention program in their community to assist in developing attitudes and behaviour that contribute to responsible decisions concerning the use of alcohol and other drugs.

Information for the "N.A.D.I.S. CONCEPT" manual was gathered over a period of two years. As active field workers, two N.A.D.I.S. directors provided a mobile resource unit, presenting Educational Videos to:

individual classrooms (Grades 6 to 12), parent groups, service clubs, community health personnel, probation services, public seminars and other concerned citizens.

These presentations were conducted on a regular three week schedule in 12 communities on the north end of Vancouver Island, British Columbia. Their evaluations were utilized in the final decision of production of this manual.

The N.A.D.I.S. Pilot Project supports this package as an economical, practical, comprehensive Drug Education Program for community awareness. Further, the field test has indicated the community response to the N.A.D.I.S. mobile resource unit is positive and enthusiastic.

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NARCOTIC DRUG OFFENDERS AND THEIR ASSOCIATION WITH OTHER CRIMINALITY. A PILOT STUDY

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The development of drug criminality and crimes against property during the period 1976-1981 seem to speak against the statement that a clear causal relationship exists between these two. It appears therefore necessary to test and to suggest a research model on a macro-level in order to study this phenomenon.

Studies of this issue on a macro-level meet several methodological problems. Co-variation and time order are insufficient to draw the conclusions of causality between drug abuse and criminality.

The preliminary results of the studied population have shown that 50 percent of those who had committed other crimes, their first offence was not a drug offence. Moreover, 60 percent of the group with a drug offence as the first crime have during the six-year study period not been reported for other criminality. One of the conclusions can be that only a part of the population suspected for drug offences are involved in a large part of other criminality. These offenders are responsible for a large part of vehicle theft, burglary and unlawful driving (up to 30 percent). The analysis of drug criminality shows, for instance, that since 1979 many new drug offenders have been recruited from those using cannabis who have not yet advanced in the drug career and have therefore not been forced to commit crimes against property to acquire the necessary funds to buy drugs. This can partly explain the results obtained. The conclusion that a part of the studied population are involved in a large part of other criminality should, however, be further tested. The pilot study has shown that there is a possibility to design an investigation model on a macro-level for this purpose.

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THE NATIONAL ADDICTIONS TRAINING SYSTEM: A FEDERAL-PROVINCIAL MODEL

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Ontario, Canada.

Training has particular importance in the addictions field where problems are deep rooted, far-reaching and complex. In Canada in the early 1970's virtually no systematic staff training was being undertaken by the

official provincial and territorial drug agencies. The National Addictions Training System is a model of federal, provincial and territorial collaboration initiated in 1974 to increase the quality and quantity of addictions training.

This paper outlines the concepts and organization which underly the consultation, planning, development and delivery of joint federal-provincial projects. Projects were developed initially in response to basic addictions knowledge and training needs and more recently in relation to skill requirements in treatment and community-based prevention.

The focus of the paper is provided by an analysis of the federal-provincial model as it has developed since 1974. The results of an evaluation conducted in 1983 to determine the capacity of the model to meet provincial and territorial training needs are reported. Finally in the light of this analysis the determinants of the model's success are identified and recommendations are made regarding its application to other health issues.

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THE NATIONAL COUNCIL ON ALCOHOLISM

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Founded in 1944, the National Council on Alcoholism Inc. (NCA) is a voluntary health agency founded to combat the disease of alcoholism and to fight the stigma associated with this treatable disease. NCA's major areas of activity at the national level are

prevention and education, public policy advocacy (for which it maintains a Public Policy Office in Washington, D.C.), publications, Affiliate relations (NCA has approximately 200 Affiliate member organizations nationwide) and public information.

NCA conducts the annual National Alcoholism Forum, which brings together volunteers and professionals in the field.

Each of NCA's affiliates has its own volunteer Board of Directors and operates within the general policies of NCA.

NCA's current major undertakings are:

- to encourage and support, at the national level, legislation limiting the irresponsible use of alcohol and alcohol advertising;

- the distribution of its nationwide, multi-media campaign, sponsored by the Advertising Council to spread the word that alcoholism is a treatable disease;

- to encourage increased support by the Federal Government of the National Institute on Alcohol Abuse and Alcoholism.

NATIONAL VOLUNTARY ORGANIZATIONS

H. Hayles, Voluntary Organizations; Winnipeg, Manitoba, Canada.

The National Voluntary Organizations (NVO) was established in 1974 through the initiative of the then Secretary of State and leaders of Canada's voluntary sector. Since that time, its goals have been:

- to identify and build upon the common interests of Canada's voluntary section; and
- to improve liaison and means of cooperation between the voluntary sector and the federal government.

The identification of common interests has been made at National Consultations in 1974, 1977, 1981 and 1984, or from consensus gained through other meetings and workshops or the mailing process.

Since 1981, the priority area of concern has been Tax Reform as it relates to charities. NVO proposals for a 50% Tax Credit (Give and Take) and Allowable Activities by Charities (Charity-To-day and To-morrow) have been discussed with the Ministers of Finance and Revenue Canada as well as with the Secretary of State.

Also, NVO has pursued through studies, surveys, seminars, etc., the issue of a Voluntary Action Policy, the Economic Contribution of Volunteers, Training and Development of Volunteers and Staff, Communications between voluntary organizations and, more recently, an election strategy and liaison with business and labour.

The NVO Coalition now numbers over 130 organizations.

There is no affiliation fee but, in order to lessen dependency on government grants, the NVO Committee has found it necessary to appeal for annual support funding from the constituency.

The NVO Committee which administers the NVO affairs is elected at the National Consultations and is representative of volunteers and staff of National Organizations.

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NATIVE WOMEN AND CHEMICAL DEPENDENCY: A REVIEW OF THE LITERATURE AND FUTURE TRENDS

M. Baker, Alcoholism Foundation of Manitoba, Winnipeg, Manitoba, Canada.

Alcohol and drug abuse among Native Canadian Indians is widely noted but little documentation is available on Native women alcoholics. A brief discussion of the literature will be presented as well as an examination of special needs for assessment, treatment, recovery and after-care for Native women. Some attention will also be given to future trends e.g. cross-cultural counselling, sexuality, child welfare and family violence issues.

THE NATURE AND EXTENT OF ALCOHOL AND DRUG USE AND ITS CONSEQUENCES IN CANADA

M. Adrian, Statistical Information Section, Addiction Research Foundation, Toronto, Ontario, Canada

This paper presents an overview of alcohol and drug use and its economic, legal and health consequences in Canada. The information is based on data from official registries, existing administrative reporting systems, and population and market research surveys. Included is the latest available information which is presented in an elementary cost-benefit framework.

NEVRITES OPTIQUES ALCOOLIQUES INTRACLINIQUES SANS CARENCES VITAMINIQUES.

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Une névrite optique a été recherchée (examen de la papille, champs visuel, vision des couleurs) dans un groupe de 82 patients hospitalisés pour sevrage d'alcoolisme avec dosage de la vitamine B1 et B12 de l'acide folique, du zinc plasmatique et du plomb sanguin.

Dans ce groupe, 32% avaient des anomalies du champ visuel et/ou une dyschromatopsie mais aucune différence n'a été retrouvée entre sujets atteints et indemnes pour les concentrations sanguines des Vitamines

étudiées; en outre les valeurs se situaient dans les limites de la normale.

Une corrélation négative entre le plomb sanguin et le zinc plasmatique a été observée. Les sujets ayant une névrite optique ont une concentration en plomb plus élevée et en zinc plus basse. De même, les anomalies des tests usuels de dépistage: gamma glutamyl transpeptidase, volume globulaire moyen, oxaloglutamyl transférase sont plus prononcées chez les patients atteints de névrite optique.

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NEW ENZYMATIC TEST STRIP FOR ALCOHOL IN SALIVA: ITS UTILITY IN ROADSIDE AND CONSUMER USE

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A new technique for determining blood alcohol concentrations through a simple, quick, direct measurement of alcohol in saliva has been developed. The ALCOSCAN Saliva Alcohol Test utilizes enzymatic oxidation of ethanol by alcohol oxidase coupled to an indicator system which produces an intense and stable blue color. The chemistry is contained on a small and inexpensive test strip which is easily carried in the pocket, is highly specific for alcohol, and is stable at normal room temperatures. Determination of alcohol concentration is by reference to a color chart or by reflectance photometry. The method has shown a high degree of correlation with head space gas chromatography for both serum and saliva samples ($r=0.987$) and

with other enzymatic methods ($r=0.993$). ALCOSCAN Saliva Test results also have been highly correlated with breath analysis by Intoxilyzer R 5000.

The ALCOSCAN Test Strip has been evaluated at the roadside as a complement to field sobriety testing and has been found to be highly effective and useful in situations where the actual BAC is 0.05 and 0.15%. The technique is also useful as an aid in educating consumers about the relationship between alcohol intake and their blood alcohol levels.

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THE NEXT GENERATION: A PROBE INTO THE YEAR 2010

H. Schankula, Addiction Research Foundation, Toronto, Ontario, Canada.

A brief historical sketch identifies the role and place of alcohol and drugs in man's environment and culture.

As a result of discussion with alcohol and drug industry individuals, producers, scientists, clinicians and counter-measure preventionists, several predictions of alcohol and drug use are put forward for the year 2010.

The paper is intended to stimulate discussion as a base for futuristic thinking concerning the development of strategies and tasks to increased effectiveness in future prevention.

NICOTINE CHEWING GUM, RAPID SMOKING, AND A "PLACEBO" EFFECT

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The present study carried out with a population of long-term heavy smokers investigated the effect of Nicorette Chewing Gum (NCG, Glaxo, Australia) on volunteers given either rapid puffing or rapid inhaling therapies for three weeks prior to the introduction of the NCG. To investigate the influence of placebo factors one half of the subjects were told that the gum would take two weeks to work to its fullest potential. The remaining half were told that it would be effective from the start.

If placebo-expectancy influences were at work with the counter-demand instructions (CDI) then an abstinence rate in favour of the normal instructions (NI) for just those first two weeks would be expected. Instead it was found that subjects in the CDI group contained significantly fewer abstainers as measured by self-report, carboxyhemoglobin and thiocynate data. Across the whole of the study NCG was associated with a 53% abstinence rate after 15 weeks in the NI group as opposed to a significantly smaller 30% abstinence rate in the CDI group.

NURSING DIAGNOSIS IN THE CHEMICALLY DEPENDENT CLIENT

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Nurses working with chemically dependent people need to begin to conceptualize care for their clients in diagnostic terms. Addictions nursing is infant in its definition and delimitation of the scope of practice. The paper discusses the nursing diagnoses used by staff nurses in a community based teaching hospital, generated on patients to whom the addictions team has formally consulted. The nursing kardex is used to document the diagnoses established for each patient. The nursing philosophy in the hospital requires nursing problems to be identified in diagnostic terms.

The Clinical Nurse Specialist on the addictions team compares the problems generated by the counsellor/physician on the team and the nursing diagnoses identified by the primary nurse or designate on the nursing ward. Diagnoses are numerous and varied, often falling more under the medical than the nursing domain. Patterns of diagnoses are examined and suggestions for further research are discussed.

OBSERVATIONS DE 200 SYNDROMES D'ALCOOLISMES FETALES OBSERVES EN 25 ANS. QUELQUES PRECISIONS CLINIQUES ET PATHOLOGIQUES

P. Lemoine, Centre Hospitalier Universitaire de Nantes,
Nantes, France.

Sur le plan clinique:

- (1) Le faciès des différents aspects, ses modifications avec l'âge;
- (2) L'hypotrophie persistente;
- (3) La fréquence des malformations cardiaques, oculaires, osseuses fentes palatines;
- (4) L'atteinte psychique et caractérielle grave pouvant évoluer vers la psychose.

Sur le plan pathogénique:

- (1) Le syndrome n'apparaît que si la mère a des altérations de son organisme par un alcoolisme ancien entraînant des anomalies des métabolismes de l'alcool;
- (2) Si la femme cesse de boire, elle peut ensuite avoir des enfants normaux.

OPIATE RECEPTORS BLOCKADE IN ALCOHOL ADDICTS; BEHAVIOURAL AND ENDOCRINE EFFECTS

G. Gerra, G. Rastelli, G. Ceresini & P. P. Vescovi,
Institute of Medical Clinic, University of Parma,
Parma, Italy.

Behavioural effects of chronic alcohol consumption are well known. Ethanol is also able to influence the peripheric nervous system, central nervous system, and liver function; particularly prolactin (PRL) production is increased. Some authors noted the diffusion of alcohol abuse in place of opioids in the drug addicts and supposed tight relationships between alcohol and opioid receptors.

The aim of our study was to evaluate the effect of opiate receptors blocked with naloxone on PRL secretion and behavioural pattern in alcohol addicts. Ten addicts who had been abusing ethanol for at least ten years were studied. All the subjects were affected by chronic liver diseases. Naloxone (1.6 mg/h) in saline solution was infused during 3 h (from 0' to 180') and blood samples collected at -20, 0, 15, 30, 45, 60, 90, 120, 150, and 180 minutes. All the subjects were submitted to a second test 3 days later, with saline solution only. PRL assays were realized with the RIA method. The patients were observed 30 minutes before the tests and every 30 minutes during the tests to analyze behavioural pattern. Anxiety, depression, mind derangement, and tremor have been considered. No behavioural effects were noted after naloxone infusion. PRL levels didn't show significant differences in two tests.

These data exclude the possibility that high PRL values in alcohol addicts were induced by increased opioid tone. We can consider hyperprolactinemia as a result of the serious liver disease observed in these patients. The lack of behavioural effects confirms the hypothesis of altered opiate receptors affinity in those who have abused alcohol for a long period of time. Opiate receptor sensibility to alcohol is decreased, except after acute ethanol administration.

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OUT-PATIENT WITHDRAWAL FROM HEROIN DEPENDENCY USING METHADONE: EFFICACY OF TWO SHORT-TERM MODALITIES

R.L.G. Croxford, Moreland Hall Alcoholism and Drug Treatment Centre, Melbourne, Victoria, Australia.

Controversy over the use of the drug methadone in heroin withdrawal is not abating and use of the drug in various treatment modalities continues despite some vigorous opposition. Assessing the efficacy of such treatment methods requires scientific discipline. Goals of the program, sociological and psychological factors involved, the inadequacy of present models of dependency and the possibility of a new paradigm for drug dependence are significant factors in any evaluation. So too is the acknowledgement of professional bias.

An evaluation of an out-patient withdrawal program using methadone in two treatment modalities (7 and 17 weeks) is given. Psychosocial factors considered to be causal in drug dependence were studied. The place of psychotherapy in treatment was studied also. Specific

to this element was the role of the Myers-Briggs Type Indicator in rehabilitation. Use was made of a mood state inventory and self-reporting of withdrawal symptoms. to evaluate subjective states during withdrawal. Possible relationships between these variables and the outcome of the two regimens are discussed. The data indicates that the rapid withdrawal regimen (7 weeks) enabled a significant percentage of the population, in relationship to that of the gradual withdrawal regimen, to become drug free. The data also indicates that a significant percentage of the population on the RWD, than did the population on the GWD, reached a dose of less than 10 mg. A hypothesis is posited for these unexpected findings. It is based upon the subjective feelings of heroin dependent persons during withdrawal especially the ability to cope with anxiety state.

At specific dose levels the level of anxiety is significantly higher and the level of wellness significantly lower thereby creating an environment in which the individual tends to use illicit heroin and/or withdraws from the program. A vital outcome for treatment should be self-monitoring of the decrement rate.

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AN OVERVIEW OF UNDERSTANDING OF ALCOHOLISM AS A DISORDER

R. K. Ganguly, The Salvation Army Shield of Service Detox and Reintegration Treatment Center, Kansas City, Kansas, U.S.A.

Alcoholism has been described as a disease entity, a

learned maladaptive behaviour, and a disorder of underlying symptoms of socio-psycho-cultural problems. These approaches have led to the differences particularly in these areas: (1) professional conceptual premises on alcoholism, (2) diagnosis of alcoholism, and (3) formulation of treatment strategies.

Alcoholism is a multifaceted disorder that affects all life health areas - physical, psychological, social, etc. This paper presents a comprehensive overview of each approach. Also, it includes discussion on agreements and disagreements in dealing with alcoholism due to the conceptual differences in the professional understanding of alcoholism.

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PARENT EDUCATION AS A COMMUNITY MOBILIZATION STRATEGY

D. Golinowski, Alcoholism Foundation of Manitoba, Winnipeg, Manitoba, Canada.

"Kids & Drugs: Prevention Education for Parents", a primary prevention program developed by the Alcoholism Foundation of Manitoba, is designed to provide parents with general information about drugs and their use, an opportunity to examine skills needed for the prevention of problem drug use in the family and to develop a preventive plan of action in the home. The program consists of three books: a parent's handbook, an activity book, and a leaders manual. It has been used in several provinces in Canada and some states in the U.S.A.

What differentiates this program from other parent education activities is that it contains an emphasis on community action as well as parenting knowledge and skills. Parents are encouraged to become involved in a variety of prevention strategies within the community.

In Manitoba the program is delivered by community people trained through the Alcoholism Foundation of Manitoba. Sponsors of the program range from parent councils in schools, to church groups, to local Family Resource Centres and Child Guidance clinics.

Discussion focuses on how to use parent education programs to establish networks with other community groups and to encourage the development of community based prevention resources.

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PATTERNS OF COMPLIANCE AND EVASION IN TREATMENT PROGRAMS WHICH INCLUDE SUPERVISED DISULFIRAM

C. Brewer, Community Alcoholism Treatment Service, Westminster Hospital, London, England.

Examination of the compliance patterns of 82 patients offered supervised liquid disulfiram, and for whom adequate supervision by family members, friends or colleagues was possible, showed that 45% took disulfiram regularly and remained abstinent throughout the minimum six month period for which it was prescribed. Twenty-three percent risked drinking alcohol while taking disulfiram, half of whom did not experience a significant reaction on doses of 200-300mg daily. In 9 patients there was a temporary lapse of supervision, often because the patient was doing so

well. Two patients deliberately vomited up the medication. Another two substituted inert medication. Nine patients dropped out of treatment - usually after separating from their partner - and 2 refused to start disulfiram. Apart from these 11 patients, attempts to sabotage or evade treatment were not usually associated with a poor response. In most cases it was possible to out-manoeuvre the patients by increasing the dosage or modifying the supervision techniques. Awareness of these possible patient responses is essential if the considerable potential of supervised disulfiram is to be maximized.

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THE PEER ASSISTED LEARNING (PAL) SMOKING PREVENTION PROGRAM

P. Melia, S. Swanson, R. Warren & G. Mutter, Health and Welfare Canada, Ottawa, Ontario, Canada.

This paper provides a developmental overview of a peer assisted smoking prevention program for Grade 7 students (ages 11-13).

While the prevalence of smoking among adults has declined significantly over the last decade and a half, the trends among youth have been less encouraging. In Canada, young people are experimenting with smoking in greater numbers and at earlier ages than ever before. Given these disturbing trends in smoking, the Health Promotion Directorate initiated the development of the "Generation of Non-Smokers" program, a long-term smoking prevention strategy. The Peer Assisted Learning (PAL) Smoking Prevention Program, the subject

of this paper, is a school resource being developed under the "Generation" program umbrella.

PAL is modelled on the social influences approach to smoking prevention. The theoretical underpinnings of the PAL Program will be discussed in a review of the developmental phase of the resource. Field testing of PAL which is currently underway in six sites across Canada, will also be highlighted through a review of the research design and methodology. In addition, preliminary findings on the PAL process data, as well as a discussion of the analysis plan for the outcome data, will be presented.

The paper will conclude with a discussion of the implementation strategy for national distribution of the PAL Smoking Prevention Program. Specific attention will be given to the difficulties of developing and disseminating an educational resource on a national scale.

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PEER-LED DRUG ABUSE PREVENTION APPROACHES

C.L. Perry, Division of Epidemiology, University of Minnesota, Minneapolis, Minnesota, U.S.A.

The ineffectiveness of educational methods to prevent drug abuse is well documented. Methods that seek knowledge change, arouse fear, or focus on long-term health outcomes do not appear to alter onset or maintenance of drug use patterns. Social-psychological theory has changed the focus of prevention methods by regarding drug use as a social behaviour, imbedded in

the context of a social life-style, with multiple deterrents. Peer-led drug abuse prevention approaches seek changes in environmental, personality and behavioural factors that predict use in etiological research. Trained peer leaders are a critical component of these programs because they provide viable, attractive alternative role models, use appropriate language, and institute a norm of non-use. Peer-led approaches in school-based programs have seen reductions in smoking onset rates of 50-70%, with positive outcomes now being seen for alcohol and marijuana use as well. A model program based on these concepts, Amazing Alternatives, will be presented, with outcomes to date, and implications for future prevention research.

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PERSONALITY AND SOCIAL CHARACTERISTICS OF CO-DEPENDENT WOMEN IN THE UNITED STATES

S.B. Smalley, Dependencies Institute, Minneapolis, Minnesota, U.S.A.

Women with Co-dependent patterns chronically engage in addictive relationships. These patterns are composed of learned behaviours, beliefs and feelings about relationships that result in painful self-neglect.

In alcoholic systems women who believe that their lives depend exclusively on the approval of others often feel very discouraged.

Women with Co-dependent patterns participated in a study in Minneapolis, Minnesota, U.S.A.

The data indicates that these women have unmet dependency needs, an external locus of control, have conflicts over self-care and have had at least one highly critical care-giver.

This paper discusses the psychosocial factors of these women and gives a specific treatment modality for changing Co-dependent patterns addressing the intrapsychic process, interpersonal relationships and systems dynamics.

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PERSONALITY TYPES AND HIGH RISK USE PATTERNS AMONG ALCOHOLICS AND DRUG ABUSERS

J.J. Rossi & W.J. Filstead, Lutheran Center for Substance Abuse, Park Ridge, Illinois, U.S.A.

The MMPI and the HIGH RISK DRINKING/DRUG USE QUESTIONNAIRE were administered to a population of 700 alcoholics and substance abusers in an in-patient specialty hospital treatment setting. In addition, an extensive drinking/drug use history was also taken.

Using cluster-analytic techniques, the MMPI data were recoded into four dominant personality types. These personality types were separately identified and confirmed in the samples of alcoholics (N=400) and drug users (N=300).

Relationships between personality type and the high risk drinking/drug using situations were examined by correlational and discriminate analysis procedures. Specific patterns of risk in relationship to

personality type were identified, but the influence of drinking/drug use histories confounded these findings.

Further work is underway which attempts to weigh the influence of these three dimensions.

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PERSPECTIVES ON TREATMENT: TOBACCO ADDICTION

M. Rigatto, Latin American Coordinating Committee on Smoking Control, Porto Allegre, Brazil.

Nicotine is second only to cocaine in addictive power. We need more doses of morphine in a cancer patient than cigarettes in the lips of a boy to make an addict. The ease for nicotine addiction decrees the immense importance of its prophylaxis and the poor perspectives for its treatment.

The experience accumulated in these last 30 years point to public information as the main tool for both prophylaxis and treatment of tobacco addiction. The evidence is large and varied: (1) medical doctors smoke less than other liberal professionals since they know more about tobacco dangers, (2) radiologists and chest doctors smoke less than other specialists since they know more about lung cancer, bronchitis and emphesema than other doctors, (3) people with higher social-economic levels smoke less because they are better informed than people at lower levels, (4) communities exposed to public information campaigns on smoking dangers show a progressive decline in smoking addiction, and (5) short intensive courses on smoking and related health problems lead to smoking withdrawal

rates as high as 80% at the end of the course and as high as 40% one year later.

Several other forms of treatment have been proposed for tobacco addiction such as acupuncture, hypnotism, chewing gum with nicotine substitutes, aversion induced by rapid inhaling techniques, and many others. There is no convincing evidence of their effectiveness.

Palliative treatment has been sought through the substitution of pipes or cigars for cigarettes, through the substitution of filter for non-filter cigarettes, and through the change from high tar and high nicotine to low tar and low nicotine brands. Some progress may be achieved by these approaches. But time has proven all of them to be liable to increasing instead of reducing the risks to which the tobacco addict is exposed.

Treatment of tobacco addiction as well as its prophylaxis apparently has as its mainstay the protective power of a well-informed intelligence.

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PHAGOCYTOTIC ACTIVITY IN CHRONIC ETHANOL TREATED RATS

H. Abe, K. Yamauchi, T. Kawahara, T. Yokoyama & K. Tanikawa, Department of Internal Medicine, Kurume University School of Medicine, Kurume, Japan.

There is clinical evidence of an increased susceptibility to infection after alcohol ingestion. A depression of the phagocytotic function of the reticuloendothelial system has also been suggested.

For clarifying whether the phagocytotic activity of Kupffer cells in ethanol treated rats is depressed or not, Kupffer cells were isolated from chronic ethanol feeding rats and their phagocytotic activity was examined.

Male SD rats weighing 150-200g were fed a nutritionally adequate liquid diet containing 36% of the total calories as either ethanol or isocaloric carbohydrates for 6 weeks.

Kupffer cells were prepared by pronase digestion and density gradient centrifugation, then provided for the following experiments; 2.2 μ m and 0.59 μ m latex particles and OK432 particles (Streptococcal preparation) were used for the phagocytosis study of Kupffer cells.

The structure and phagocytotic activity of Kupffer cells were studied with the use of light and electron microscopes.

When viewed by an electron microscope, cultured Kupffer cells isolated from chronic ethanol treated rats were seen to have fewer cytoplasmic projections and their organelles showed some structural changes. Phagocytotic studies showed the inhibition of phagocytosis and pinocytosis in cultured Kupffer cells isolated from chronic ethanol treated rats.

Chronic ethanol feeding resulted in depressed phagocytotic activity of rat Kupffer cells.

PHYSIOLOGICAL MEASURES IN ADOLESCENTS AND THEIR PARENTAGE

D. Lester & J.A. Carpenter, Center of Alcohol Studies, Rutgers University, New Brunswick, New Jersey, U.S.A.

Pupillary reactivity, skin conductance and finger volume, and static ataxia have been measured in some 1400 participants (aged 12, 15 and 18 years initially) in a longitudinal study of the etiology of alcohol and drug abuse. These adolescents have now been measured on two occasions separated by a 3 year interval.

Static ataxia yields indices of subject sway and of drift (nonsway movement), and amplitude and frequency (Fourier analysis) for forward-to-backward, and side-to-side modes of sway under the eyes open and closed conditions. Besides normative data, our analyses reveal the influence of age, sex, height and weight, and show that sway is related to whether the subject's natural father, but not other relatives, is an alcoholic: sway is greater in both sons and daughters, most especially in the side-to-side eyes closed mode, of an alcoholic father. The sway of 18 year old males is also correlated with the amount and frequency of alcohol use. Our results lend the similar previous findings of Lipscomb et al. (1979) and Hegedus et al. (1984) greater credibility because the sophistication of our measure, inclusion of females, corrections for height and weight, normalization of the indices, a greater age range and many more subjects buttress the conclusion. Whether the apparently greater neurological instability is inherited or arises from nurtural factors within the family awaits further analysis.

An unrelated, but interesting, finding was that there were 75% more females than males among our participants with alcoholic natural fathers. Examination of the overall sex ratio of the children in the families of our subjects showed a 2% excess of males where there was neither alcoholism in the family nor any relatives. In families headed by an alcoholic natural father there was a 22% excess of females ($P < 0.03$). Whether this excess reflects an effect of alcohol on sperm development or motility is not known.

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PLANNING AND ORGANIZING MASS MEDIA CAMPAIGNS

R.B. Waahlberg & T. Bertheussen, Directorate for the Prevention of Alcohol and Drug Problems, Norway.

In Norway there seems to be general agreement that alcohol education is an important factor to prevent alcohol-related problems. Most programs are administered by the Directorate for the Prevention of Alcohol and Drug Problems. Since 1974, the Directorate has organized different mass media campaigns.

This paper will describe three of these campaigns, how they are planned and developed, organized and evaluated.

The paper also discusses how the Directorate and the advertising agency, Anneks A/S, have worked together.

POSITIVE APPROACHES TO PREVENTION

J. Skirrow, Alberta Alcohol and Drug Abuse Commission,
Edmonton, Alberta, Canada.

Traditional programs for the primary prevention of alcoholism and drug dependence have generally taken a disease focused, uni-dimensional approach. Often paternalistic and negative in tone, they have frequently been based upon questionable assumptions about people's behaviour and motivation, and about how these might be influenced. The results have demonstrated limited effectiveness, and then usually only in very well defined situations that do not constitute primary prevention.

Health promotion uses program approaches more firmly based in known factors regarding human motivation and behaviour. It is generally broad in scope, recognizing the essential involvement of sociocultural, environmental and economic factors in determining health-related behaviour. Its positive emphasis on healthy life-styles, and maintenance of optimal health, rather than upon disease avoidance, has produced promising results to date.

This presentation stresses the need for integrated, comprehensive approaches that clearly recognize the multiple influences on people's use of intoxicants. A case for positive, life-affirming persuasive strategies is made.

The presentation will be in the form of a professionally produced multi-media production intended to demonstrate the application of a few of the strategies.

A much more detailed report will be available at the Congress.

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PRESENT STATE AND PROBLEMS OF TREATMENT SYSTEM FOR ALCOHOLISM IN JAPAN, FROM A VIEWPOINT OF MEDICAL CARE

S. Hattori & A. Hunakoshi, Hattori Hospital, Iwata-shi, Shizuoka, Japan.

It is difficult to obtain the exact rate of appearance of alcoholism in Japan due to the private nature of the Japanese household. Doctors specializing in alcoholism estimate that 3 to 3.5% of the drinking population is alcoholic, with an increasing number of female, youth (even schoolboy) and elderly abusers.

Although the first national institute for alcoholics started 22 years ago, the progress of systematic treatment is quite slow, and the level of interest shown for these problems is, in general, still low. Because of familial, social and economic conditions, the treatment process for alcoholism is unstable. Many cases depend upon voluntary efforts of self-help groups(i.e., Danshukai or A.A.) and coordinating medical staffs in each rural areas.

The paper discusses a questionnaire dealing with alcoholism completed by 98 hospitals in Japan, and investigates it in relationship to cultural problems.

PRETREATMENT ASSERTION LEVELS AS THEY RELATE TO TREATMENT OUTCOME IN AN ALCOHOL ABUSING SAMPLE

R.Q. Dana & J. Lewis, Governors State University, Alcoholism Sciences Division, University Park, Illinois, U.S.A.

Alcohol abusers are typically perceived as having assertion deficits. Consequently assertive skills training has become an integral component of behavioural and other multicomponent treatment programs for alcohol abusers. However, assumption of assertion deficits in alcohol abusers is unwarranted since it has not been proven consistently by scientific study. Hence, an a priori insertion of assertion components in treatment regimes may be of little utility and neither time nor cost effective in the treatment of alcohol abusers. This study, then, examined the effect of pretreatment assertion levels on treatment outcome. It also examined any interactional effect between pretreatment assertion levels and treatment modality in effecting treatment outcomes. The study has both clinical and theoretical implications with regard to the clinical relevance of pretreatment assertion levels, relative effectiveness of different treatment approaches, and links between pretreatment assertion levels and therapeutic orientations.

A pretest-posttest design was utilized. In an effort to test the general hypothesis that higher pretreatment levels of assertion effect more positive treatment outcomes, Pearson Product Moment Correlational Analyses were performed. Three specific hypothesis were tested by use of hierarchical multiple regressions and repeated measures analyses of variance. Where

interaction effects were noted simple main effects tests were completed. Results indicated that subjects with high pretreatment levels of assertion tend to have less severe alcohol problems and they tend to drink less than their peers with low pretreatment levels of assertion. Further, for those subjects with high levels of pretreatment assertion there was an indication that less directive and less structured modes of therapy yield the most positive outcomes.

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PREVALENCE OF ALCOHOLISM IN A CLINIC IN SOUTHERN THAILAND AND VALIDATION OF MAST AND GGT VS CLINICAL INTERVIEW

W. Tanchaiswad & T. Benchawang, Faculty of Medicine, Prince of Songkla University, Songkla, Thailand.

This study was conducted in an out-patient department of general practice in a medical school in Thailand. Seventy-eight randomly selected patients attending a general out-patient clinic were tested with Michigan Alcoholism Screening Test (MAST), clinically interviewed by a board certified psychiatrist using DSM-III diagnostic criteria and assayed for Gamma Glutamyl Transpeptidase enzyme (GGT).

Prevalence rates of alcoholism as detected by MAST (cutting point ≥ 6), GGT (cutting point ≥ 46), and clinical interview are 31%, 20% and 26%, respectively.

On analysis of Kappa statistics, MAST has higher agreement ($K=0.68$, 95% confidence, interval= 0.47 to 0.89) than GGT test ($K=0.31$, 95% confidence, interval=

0.08 to 0.54). MAST is more appropriate as a screening test for alcoholism in Thailand than GGT. This may be due to biological differences of the latter in Thailand in comparison to western people.

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PREVENTION AS THE SOCIALIZATION OF EXPERIENCE INHERENT CONTRADICTION IN PREVENTION

U.J. Gedig, Technical University, Darmstadt, Federal Republic of Germany.

Industrialized society is analyzed not only in respect to the contradiction between wage labour and capital, but also examined in relation to the contradiction between integration and dissidence. A new understanding of the term prevention is necessary in order to ensure that preventative intervention does not deteriorate and itself become mere conformity.

Against the background of western education (German Bildung) and the fundamental claims which lay at the birth of this society, the term prevention is discussed in the categories of integration and dissidence. In this examination the focus is on the radical change in daily life.

This paper attempts to present a theoretical conception of prevention against the background of education and cultivation, whereby prevention is based on the socialization of experience.

PREVENTION DES ASSUETUDES: ESSAI D'INTEGRATION D'UN PROGRAMME D'EDUCATION POUR LA SANTE ET DE PREVENTION DANS L'ENSEIGNEMENT SECONDAIRE DE L'ETAT DE LA COMMUNAUTE FRANCAISE DE BELGIQUE

L. Bils, Comité de Concertation sur l'Alcool et les autres Drogues de la Communauté française, Bruxelles, Belgique.

Depuis plus de 6 ans, le Comité de Concertation sur l'Alcool et les autres Drogues de la Communauté française (C.P.A.D.) développe des efforts de concertation entre les pouvoirs actifs et tente de susciter des coordinations régionales des activités de prévention des toxicomanies.

On peut faire le constat, à l'heure actuelle, que les démarches préventives s'inspirent de plus des principes de l'Education pour la Santé.

Le milieu scolaire retient particulièrement l'attention des intervenants en prévention qui y développent des efforts dans la formation des enseignants à la gestion des problèmes liés aux toxicomanies ainsi qu'à leur prévention.

Parallèlement, les responsables des départements compétents du Ministère de la Santé, de celui de l'Education Nationale et du C.P.A.D. ont entrepris, en 1984, le projet d'intégrer, dans les établissements d'enseignement secondaire de l'Etat, un programme d'éducation et de prévention, construit et expérimenté ces 5 dernières années dans une dizaine d'écoles de la région d'expression allemande du pays.

C'est en s'appuyant sur les réseaux et personnes ressources propres à ces institutions communataires:

- Les Districts Pédagogiques du Ministère de l'Education Nationale
- Les Coordinations régionales du C.P.A.D. que l'on peut espérer voir aboutir le projet.

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THE PREVENTION OF ADDICTION: MODERN MYTHS AND FUTURE WORLDS

C.M. Stroh, Ministry of Health, Alcohol and Drug Programs, Vancouver, British Columbia, Canada.

At various times throughout recorded history, certain drugs and particular types of drug users have been singled out for official condemnation. Although the basis of the current concern for chemical abuse is somewhat wider than most periods of concern in the past because it includes a variety of chemicals, it also suffers the same weakness of introspection which results in excessive concern for the chemicals and an ignorance of the general causative factors which underline all addictions.

The immediate (ten to thirty years) future for the chemical dependence field could hold either loss of priority for and stagnation of programs, or a major change in emphasis and a much wider involvement of society as a whole. Unless there is some dramatic change in our current activities, the former prediction would appear to be more realistic.

Some of the social and political barriers to the amelioration of addiction are discussed, and a number of concrete corrective measures are presented.

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THE PREVENTION OF ALCOHOL-RELATED PROBLEMS THROUGH LEGAL CONTROL MEASURES

E.W. Single, Addiction Research Foundation and University of Toronto, Toronto, Ontario, Canada.

There is considerable evidence that the greater the availability of alcoholic beverages in a society, the greater the prevalence and incidence of alcohol-related health and social problems. This paper examines this relationship in detail. The first way in which alcohol availability is linked to alcohol problems is the classical developmental sequence whereby increased availability is related to increased consumption by moderate or social drinkers who then influence heavy drinkers to consume more, which in turn is related to increased acute and chronic health and social problems. Three interconnected hypotheses are involved in this process, all of which are generally substantiated by research. In particular, legal control measures such as age limitations, restrictions on frequency of outlets, hours of operation, marketing and promotion, and perhaps most importantly, the price of alcohol, all tend to be related to mean levels of consumption in a society as well as to indices of alcohol-related problems.

However, in addition to this sequence, there are at least three other ways in which alcohol availability is theoretically connected with alcohol-related problems.

These involve the direct impact of availability on heavy drinking, the influence of heavy drinkers on peers and the direct effects of moderate drinking on the incidence of alcohol-related problems. The available evidence supports these additional connections between alcohol availability and alcohol problems. In sum, the availability of alcohol has a mutually reinforcing impact on both moderate and heavy drinkers, and consequently availability influences the incidence of alcohol-related problems. Thus alcohol availability is more than an economic issue; it has serious ramifications for the health of people in any society.

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PREVENTION OF ALCOHOL WITHDRAWAL SEIZURES: IS PHENYTOIN NECESSARY ?

P. Devenyi, M.L. Harrison & P. Ho-Tai, Clinical Institute, Addiction Research Foundation and University of Toronto, Toronto, Ontario, Canada.

The administration of phenytoin as a prophylactic agent for alcohol withdrawal seizures has been an established clinical practice for many years. Since the introduction of diazepam-loading technique for the treatment of alcohol withdrawal, the necessity of phenytoin-prophylaxis has been questioned. In a previous double-blind study we reported that only placebo-treated, but not diazepam-loaded patients developed seizures.

In the current study, 20 high seizure-risk alcoholic patients with verified previous alcohol withdrawal seizures were admitted to hospital on 22 occasions and

were treated with oral diazepam-loading: 20mg every hour to a minimum total of 60mg diazepam. No phenytoin was used in any of the cases. Although the expected risk of withdrawal seizures in this group without treatment was 30-50%, none of the patients developed them.

We believe that phenytoin-prophylaxis is not necessary in these patients if diazepam-loading is used in the withdrawal period.

The only patients, in our experience, who had seizures in spite of diazepam-loading, were those who were already on chronic phenytoin therapy prior to admission. Therefore, if patients have been taking anticonvulsants for any reason, these should not be stopped abruptly in the withdrawal period in favour of diazepam-loading.

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PREVENTION OF DRUG ABUSE: A BAHAI PERSPECTIVE

A.M. Ghadirian, McGill University, Department of Psychiatry, Montreal, Quebec, Canada.

Prevention of drug abuse continues to present a serious challenge to modern day society. The advent of modern civilization has increased the individual's expectation for security and comfort. This expectation is complicated however by the current rise of social stress and uncertainty. The pervasive problem of drug abuse and alcoholism, particularly among the youth, reflects this dilemma and indicates a crisis within the person who is in search of meaning in life.

Based on the principle of harmony between science and religion, the Baha'i faith adopts a systematic and realistic approach to the dilemma of alcohol and drug abuse. According to these teachings, man's thought constitutes his reality. The use of illicit and intoxicating drugs is forbidden as it is considered an impediment to the progress of mind and soul and in conflict with the true purpose of life. Special emphasis is placed on early education and family life where parents are the prime examples for children. Home is therefore seen as an ideal place where prevention of drug abuse begins. Moreover, life in this world is seen as a spiritual journey, the goal of which is to perfect one's self through tests and trials of life and to fulfill one's potential in serving mankind.

Application of this concept means that self centredness is overcome by being conscious of the needs of others. Likewise, work in the spirit of service is regarded as worship. With such an attitude, life is perceived as having a multitude of opportunities and challenges to be seized for individual growth. This, as well as community support, counteracts the boredom, insecurity and lack of positive alternatives that have been reported to be conducive to drug abuse. The author discusses other aspects of the Baha'i perspective on prevention of drug abuse.

PREVENTION STRATEGIES FOR CHILDREN WITH DRUG ABUSING PARENTS

K. Kumpfer & J. DeMarsh, Social Research Institute, University of Utah, Utah, U.S.A.

Children of drug-dependent parents are at higher risk to develop addiction problems and a variety of mental health problems. The characteristics of these children and their families is not well understood and has been the focus of the author's three-year research project. A stratified random sample survey of normal families (N=120) compared to clinical drug-abusing families (N=120) disclosed that children of drug abusers have more behavioural, educational and psychological problems; have restricted access to social resources; and experience increased stress and more negative methods of child management. The drug abusing families fit the Moos profile of the distressed family, have greater cohesion, social isolation and expressiveness.

These results were then used to develop and test the effectiveness of three family-based interventions in reducing the risk status of the children (ages 6-12 years). Eighty drug abusing families were assigned to four prevention groups: (1) Parent Training, (2) Parent Training plus Children's Social Skills Training, (3) Family Skills Training, and (4) No-intervention. The family-based prevention strategies were assessed using a pre and posttest battery with multiple measures from multiple sources and a process evaluation of the interventions.

The prevention program evaluation and issues in implementing and assessing family-based prevention programs will be discussed.

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PREVENTION STRATEGIES: COUNTER-MEASURE PROGRAMMING USING PERSUASION AS A PREVENTION STRATEGY

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Many education, information, and communication professionals in the alcohol and other drug fields are concerned about the implications of the use of persuasive techniques in message development and delivery. Objective value-free diffusion of scientific fact is the stated preferred method. The use of high anxiety, fear-based content is discouraged.

The elements of persuasive methodology are explored with pragmatic examples. How messages are designed and constructed in the alcohol and drug field to maximize persuasive intentions is explored. Persuasive approaches are an integral part of other prevention strategies. Other strategies including information, delay, separation, substitution, self-esteem development, micro and macro availability will be briefly discussed.

The effectiveness of value-free, scientific, fact-based messages and affective persuasion is discussed.

PREVENTION STRATEGIES: PUBLIC SUPPORT FOR ALCOHOL CONTROL POLICIES AND THE CONSTRAINTS ON CHANGE

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Analysis of a general population survey (NZ=3,600) carried out in New Zealand in 1982 has demonstrated that when the drinking population is categorized in terms of their customary drinking practices and the contexts of their alcohol use, these clusters are also differentiated in terms of their support for a variety of topical control policy issues.

Attitudes towards policy were related both to personal use of alcohol and to socioeconomic and educational levels. For example, among men the largest cluster, irregular home drinkers, were the most supportive of a range of control policy options and the cluster of heavier hotel and tavern drinkers were the least supportive. These two groups also differed in terms of socioeconomic status, with the irregular home drinkers being more likely to have high-middle socioeconomic status and a better education. However, a further cluster of male drinkers, similar to the irregular home drinkers in terms of socioeconomic status and education level, but more frequent consumers, were less supportive of controls.

The clusters of women drinkers were also differentiated in terms of the extent of their supports for control policies, but showed greater variability in their responses to different control policies.

These results are discussed in relation to targeting

educational efforts to prevent alcohol-related problems, with particular reference to a recently evaluated New Zealand campaign to disseminate information about alcohol control policy issues through both the paid and unpaid media channels.

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PREVENTION TRAINING IN THE ADDICTIONS FIELD

T. Bhatti, Health Promotion Division, Edmonton Local Board of Health, Edmonton, Alberta, Canada.

The purpose of this paper is to describe a National project that has developed training resource materials for training of prevention workers across Canada.

The project was initiated as a result of a National needs assessment conducted by the National Planning Committee on Training in the Addictions Field. A Task Group was set up that guided delineation of competencies required to undertake prevention work. Based on the competencies, training resource materials comprised of "Essential Concepts and Strategies", "Change Agent Skills", "Community Mobilization" and "Program Planning and Implementation" have been produced and field tested. There is an instructor manual and six monographs for participants.

The paper will provide the background information about the project, introduce the training resource materials and provide guidelines for their use.

THE PRIMARY PREVENTION OF DRUG ABUSE: MAJOR PROMISING APPROACHES

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During the past 20 years, programs for the prevention of drug abuse have been principally targeted at adolescents. This is justified by studies which show that the initiation of drug usage generally occurs early in the second decade of life and follows a characteristic developmental course. By the late teens, patterns are established that are strong predictors of adult drug usage.

The National Institute on Drug Abuse (NIDA) has supported a number of evaluation studies of adolescent drug abuse prevention programs. The results support the conclusion that neither drug information programs nor "affective education" programs by themselves reduce drug using behaviour. However, curricula showing considerable promise utilize peer resistance strategies and other skill building approaches that counter motivational factors leading to drug abuse.

Recently, the focus of NIDA's drug abuse prevention research has broadened into a community perspective. The increasing success in reducing tobacco consumption has taught the value of creating a milieu opposed to the use of tobacco rather than a milieu of acceptance or even glamorization. The creation of a non-drug environment includes: (1) efforts to mobilize the print and broadcast media, (2) the development of an influential parent movement for drug free youth, (3) effective school interventions, (4) legislative changes

to support supply reduction, (5) program implementation and legislative changes to reduce drunk driving, (6) work-site prevention and employee screening programs, and (7) prevention training for primary care physicians and nurses.

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PRISE EN CHARGE D'ADOLESCENTS EN DIFFICULTE A EXPRESSION TOXICOMANIAQUE, EN MILIEU EDUCATIF FAMILIAL

G. Wallimann, J. Piquet & J.P. Leblanc, "Oeuvre de l'Abbé Denis", Pau, France.

Dans notre service, la démarche d'assistance éducatif et thérapeutique en milieu familial substitutif a permis durant de longues années, de favoriser l'élaboration d'un sentiment de l'estime de Soi chez des adolescents en difficulté.

Cette population s'est profondément modifié. L'usage de drogue: haschich, héroïne colle, alcool, a marqué de son empreinte ces jeunes. Nous avons aménagé notre mode d'intervention tenant compte des troubles majeurs dans la structuration de la personnalité de ces adolescents.

Notre propos est de rapporter notre expérience éducative et thérapeutique toujours avec l'aide de familles d'accueil.

PRISE EN CHARGE PSYCHIATRIQUE ET PRISE EN CHARGE ALCOOLOGIQUE DES ALCOOLIKES

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La complexité des facteurs qui concourent au "phénomène alcoolisme" peut expliquer l'insuffisance des résultats obtenus à partir d'un point de vue parcellaire et spécialisé.

Si l'alcoologie mondiale s'est souvent enrichie des travaux et points de vue de psychiatres (par exemple: FOUQUET - EWING - VAILLANT, il faut souligner que c'est en dépassant les "modèle symptôme" qui ne ferait de l'alcoolisme d'un individu que la partie émergée d'une maladie mentale ou d'un trouble de personnalité au même titre que l'insomnie ou les hallucinations.

Si les médecines-alcoologues non psychiatres doivent tenir grand cas de troubles psychiatriques induits par la consommation d'alcool chez leurs malades, il paraît utile aux psychiatres, qui soignent des alcooliques, de prendre un "recul alcoologique" qui intégrera ainsi les facteurs biologiques et socioculturels dans une stratégie thérapeutique en rendant celle-ci plus efficace.

PROBABILITIES OF DRUNKEN DRIVING AMONG THE U.S. PUBLIC

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Drinking and driving is a major public health problem, but neither the actual incidence nor prevalence of the problem is known. Development of truly effective means for preventing, deterring, and intervening is hampered by this lack of information.

Long-Term Objectives: The present study is designed to address this problem with a new and more differentiated approach, one which should provide the methodological basis for accurately determining the actual incidence and prevalence of driving after drinking. This approach should also provide the statistical basis for estimating the probabilities of driving under the influence of alcohol (DUI) among the general public, as well as among the motoring public - including drivers convicted of DUI.

This approach is based upon four concurrent, interrelated projects which are focused on different, but interdependent segments of the American drinking and driving public: (1) general adult population, (2) nocturnal driving public, (3) convicted first DUI offender population, and (4) convicted second DUI offender population. The basic rationale derives from analyzing the known characteristics in these interrelated populations to determine the similarities among those who "get into trouble with alcohol", as well as the differences between them and those who do not.

The specific aims consist of developing, pilot testing, and cross-validating statistical methodologies (based upon the four populations and prior research) for: (1) estimating the probabilities of driving with high, low or no alcohol for individuals in selected subsets of the general population; (2) estimating the incidence and prevalence of driving at zero, low, medium, and high blood alcohol concentrations; and (3) early identification and diagnosis of high-risk problem-drinker drivers.

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THE PROBLEM OF ADDICTION NURSING IN CANADA - NATIONAL SURVEY 1982

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Addiction nursing has been a long neglected specialty area within the Canadian nursing profession. Historically, the role of the nurse in caring for the chemically dependent patient has been fragmented, diminished, minimized, varied in scope and generally misunderstood. However, the recent trend toward specialization and certification in nursing provides an opportunity to define this particular body of knowledge and identify the area of expertise.

The various problems associated with role diversity, unclear expectations, poorly identified role elements, the lack of specific preparatory education, the variety of skills necessary and the concern for professional burnout will be presented based on survey responses.

The need for a national association to coordinate and represent addiction nurses in Canada will also be discussed.

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PROBLEMS ASSOCIATED WITH CHEMICAL USE, MISUSE AND ABUSE AMONG NURSES

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The medical professions recognize substance abuse as a potentially damaging problem within the professions.

This paper examines issues concerning nurse substance abuse. The distinction between drug and alcohol use, misuse and abuse is debated. Results of original research are reported. The research is based upon an anonymous return-mail survey instrument (N=249) and a review of the literature. Data and correlation among demographics, substance use patterns, role stress, work dissatisfaction, and general information regarding drug use in hospital settings are presented.

Specific management problems associated with the chemically dependent nurse are noted and possible solutions presented.

THE PROCESS OF RECOVERY FROM ALCOHOLISM IN SITU: USING ELECTRONIC PAGERS TO RANDOMLY MONITOR EXPERIENCE STATES

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The process of recovery (during the first 90 days post-treatment) in a population of alcoholics and substance abusers was studied in an experimental design that employed electronic pagers to randomly generate self-reported experience states on the thoughts, feelings and relationships of individuals.

Subjects were randomly assigned to one of three protocols that employed a pre-determined set of standard questionnaires and self-report log books. Baseline (admission) data, across a set of multi-dimensional questionnaires were gathered on 700 subjects. Of the 500 subjects who qualified for the research protocol, 200 agreed to participate and were randomly assigned across the aforementioned three groups.

Contacts with these subjects (except for the control group) consisted of a weekly phone call and every other week a structured interview and a set of standard forms.

The data presented in this paper will describe this population and examine the influence of beeper self-monitoring activities on relapse rates.

A PROMISING TECHNIQUE FOR SUCCESSFUL CLIENT-TREATMENT MATCHING: THE ADDICTION ASSESSMENT PROCESS

G. Cooper & J. Zarebski, Addiction Research Foundation of Ontario, Sudbury, Ontario, Canada.

It is no secret that many health care professionals and lay persons alike view the efficacy of addiction treatment programs with considerable disdain. Their lack of confidence in such programs reflects a sense of frustration that clients are seldom assisted through the system with any kind of consistency. Given the apparent lack of consistency there is no guarantee that the individual client will receive the most appropriate therapeutic approach based upon his/her needs. High rates of attrition and/or relapse are therefore encountered and reinforce continued skepticism towards addiction treatment effectiveness.

This paper describes a cost-effective method whereby alcohol/drug hurt clients and their families are much more likely to receive the care they require. A working model of selectively matching specific therapeutic interventions to clients' needs is presented, along with reasons for its success. The importance of role delineation where the therapist assumes the function of addictions expert is discussed in the context of the addictions assessment process.

The paper also looks at general implications for the addictions treatment field with the emergence of such treatment to client assessment and referral centres.

A PROSPECTIVE CONTROLLED INVESTIGATION OF A TREATMENT PROGRAM FOR ALCOHOLISM WITH THE GOAL: INCREASED CONTROL WITH ALCOHOL CONSUMPTION

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In Sct. Hans Hospital at Roskilde, a mental hospital, a unit has specialized in alcoholism treatment aiming at increased control. The purpose of the study was to evaluate the outcome of this treatment.

The treatment was group therapy which was based on learning principles and was very much like Glasser's reality-therapy. The unit functions as a therapeutic community. The 14 patients were treated in two separate groups. They were to stay for 3 months. After that they could continue as day-patients.

Eighty-six patients who were taken into the unit for 1 year have been followed up every second month with personal interviews for a year and a half after their discharge. During their stay they were thoroughly interviewed about their psychical, physical and social situation in the year before the admission to the unit. The drinking was recorded using the "calendar-method". The data from the year before the treatment are taken as baseline for changes caused by the treatment.

The evaluation of the treatment results takes into account not only the alcohol consumption but also the total social, psychical and physical situation of the patients. The parameters measured were the amount of help received from health and social authorities, the living facilities, the vocational status, the kind and

amount of income and the family relationships. The amount of alcohol ingested and the circumstances involved were measured as was the use/misuse of drugs. Criminal offences were registered. The general social and psychical well-being was measured on a visual analogue scale.

The results for the first 6 months after the treatment will be given.

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PSYCHODYNAMICAL AND SOCIAL ASPECTS OF THE RELATIONSHIP BETWEEN LIFE CYCLE EVENTS AND ALCOHOL ABUSE OF WOMEN

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In the course of the drastic socioeconomic changes in Finland since the late 1960's women entered the traditional male societal spheres and as a part thereof changed their role as controllers of male drinking into alcohol consumers themselves.

The conflict between the new role and the traditional female one internalized in childhood and adolescence can be interpreted as one of the determinants of the peculiarities in female drinking careers both before, during and after treatment but the relevance of this conflict differs by generation. The younger generation tends to consist of types characterized by a chronically crisis laden childhood having had negative influence on personality development while older patient generations have turned to heavy drinking as a consequence of an acute identity crisis. It is shown

that any generalization implying either a "contraction" or "lengthening" of the different phases in the female drinking career are oversimplifications omitting the life cycle concomitants and leading to short-cut social or psychiatric interpretations.

Clinical case reports and survey data from Jarvenpaa Social Hospital are used to illustrate and interpret the onset and course of alcohol abuse of women vs. men. The pitfalls of one-dimensional interpretations of observed "average" sex differences and their reflections in treatment strategies are discussed.

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PSYCHOLOGICAL PROBLEMS IN DRUG ABUSERS: A MODEL FOR COLLECTION AND EVALUATION OF DATA

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A number of Treatment Services for Drug Abusers have been involved in an epidemiological study carried out in Italy by the National Research Council. Among the objectives of the study is the validation of a problem-oriented record in the medical, psychological and social areas. A checklist has been set up for each of the three sectors in order to favour the use of a common language and comparability of data collected by different professionals in different facilities.

This paper, focusing on the psychological part of the problem-oriented record, describes the theoretical basis of the checklist proposed. We also discuss a first finding concerning a sample of clients in Rome and Viareggio, assessed with reference to the psychological checklist.

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PSYCHONEUROTIC PROFILES AND SOME CHARACTERISTICS OF DRUG DEPENDENTS IN A REHABILITATION CENTRE, MALAYSIA

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Drug dependence in Malaysia is now one of our most serious social ills, with 200,000 of our youth being registered as drug addicts.

Our study looks at a group of 70 confirmed drug addicts undergoing rehabilitation in a government sponsored rehabilitation centre 20 miles from Kuala Lumpur, the capital of Malaysia.

The characteristics we are studying are age, race, marital status, educational level, father's occupation, reasons for initiating drug use and for maintaining it, duration of drug abuse, types of drugs frequently abused, previous admissions for drug problems, and current motivation and expectations from this treatment course.

Besides this, the addicts were required to fill out the Middlesex Hospital Questionnaire (translated version in

Bahasa Malaysia). One of our observations is that the mean scores of this group are comparable to the scores of neurotic patients in western studies.

The discussion centers around comparisons with local and regional studies, and the use of the psychoneurotic score in the management and rehabilitation of drug addicts.

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LE PSYCHOTROPISME DE L'ALCOOL APPRECIÉ PAR ELECTRO-ENCEPHALOGRAPHIE

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Le polymorphisme des signes électriques de dommage cérébral est habituellement expliqué, chez l'alcoolique chronique par l'association de troubles métaboliques et d'action toxique directe. Les anomalies généralement constatées sont une abondance de rythmes thêta et une basse fréquence du rythme postérieur alpha.

Nous avons retrouvé ces anomalies chez les alcooliques hospitalisés à Calais, 2ème ville de France pour la mortalité alcoolique.

Mais nous avons fait quelques autres constatations:

- (1) La sensibilité à l'alcool n'est pas la même chez tous les individus.
- (2) L'hypersensibilité est aussi souvent en rapport avec une anomalie de l'activation par les stimuli.
- (3) L'épilepsie peut être due seulement à l'alcool. Mais elle peut aussi être liée à des facteurs

epileptogènes que l'alcool révèle.

- (4) L'éthanolémie et les signes biologiques ne donnent pas une indication complète sur ce qui se passe au niveau de l'encéphale.
- (5) Une encéphalopathie peut apparaître en peu de temps sans avoir été précédée de signes d'aggravation progressive du tracé.
- (6) Le neurotropisme et le psychotropisme de l'alcool peuvent être dissociés dans une certaine mesure. Le neurotropisme est lié à la toxicité de l'alcool sur la cellule nerveuse. L'abondance des rythmes thêta témoignerait plutôt du neurotropisme.

Le psychotropisme est lié à l'action dysléptique et stupéfiante de l'éthanol, probablement sur différents médiateurs chimiques. La diminution du rythme alpha et les troubles de la réactivité témoigneraient plutôt de cette affinité.

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QUELLES STRUCTURES THERAPEUTIQUES FAUT-IL PRIVILIGIER EN FRANCE POUR LES PROBLEMS D'ALCOOLISATION ET D'ALCOOLISME ?

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Il existe en France des structures de consultation (les seules spécifiques sont les Centres d'Hygiène Alimentaire et d'Alcoologie ou C.H.A.A.), des structures d'hospitalisation (avec une grande diversité d'indications, de lieux, et de modalités d'action) et des structures de suivi (en particulier établissements de réinsertion et mouvements d'anciens buveurs).

Les C.H.A.A. doivent être développés car ils ont à intervenir au niveau de la prévention (qu'il faut intensifier), comme auprès des consommateurs à risque et des alcoolos-dépendants. Dans les cas où ceux-ci doivent être hospitalisés, la structure doit travailler en liaison avec la C.H.A.A. (qui a adressé le patient, et qui continuera à le suivre) et avec un organisme de réinsertion. Un véritable Centre d'Alcoologie comporterait donc ces deux structures (d'hospitalisation et de réinsertion), ainsi que plusieurs C.H.A.A.

Une collaboration est nécessaire entre elles, et tout particulièrement entre non-médecins (surtout les mouvements d'anciens buveurs) et médecins et, alors, entre hospitaliers et non-hospitaliers comme entre psychiatres et généralistes. Ceci implique, au départ, un développement de la formation alcoologique.

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QUESTIONNAIRE FOR FINDING THE FLUSHING TYPE

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Acetaldehyde, the primary product of ingested alcohol (ethanol), is metabolized into acetic acid by aldehyde dehydrogenase (ALDH). ALDH-I, an isozyme of ALDH, has a minimal Km value, so it has the greatest affinity for aldehyde. About half of all Japanese are reported to lack ALDH-I, and show the so-called "flushing phenomenon" such as facial flushing, palpitations, nausea and/or vomiting. The ALDH-I phenotype can be detected by the isoelectric electrophoresis method by examining hair root samples. However, it is very

difficult to examine many samples by this method because of the money and time required.

The purpose of this study is to formulate a brief questionnaire to identify the ALDH-I phenotype. We examined 234 young students, consisting of 149 males and 85 females. The ALDH-I phenotype was detected by hair roots, which revealed 120 non-deficient and 114 deficient individuals.

The questionnaire inquired about 13 items of subjective signs such as facial flushing, itching, dizziness, drowsiness, headache, perspiration, nausea, palpitations, chills and discomfort in breathing. The questionnaires were structured according to three grades by frequency - always, sometimes and never. Taking 13 items as explanatory values and ALDH-I phenotype as the criterion value, we made an analysis with the quantification method of the second type.

With this questionnaire, we could distinguish correctly 87.6% of the time whether the subjects were deficient or non-deficient. This study contributes a new tool toward the research of drinking behaviours using ALDH-I as a genetic marker.

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A QUICK CHROMATOGRAPHICAL METHOD FOR DETECTION OF ARGEMONE MAXICANA IN ALCOHOLIC DRINKS NATIVE TO SUDAN

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After the introduction of the Islamic law in Sudan, demand for more potent alcoholic drinks led to a new

malpractice in this declining industry. Addition of certain narcotic-action producing plants to alcoholic drinks native to Sudan (i.e. Araqi) represents a new health hazard.

Incorporation of the dried seeds of the papaveraceous plant, *Argemone maxicana* has become a usual practice. Ground seeds are usually added to increase the potency of this native alcohol. A mixture of this plant is reported to produce a high degree of intoxication.

Development of a quick method to detect and/or assay the chemical ingredient(s) in this native drink is required by law enforcement bodies. Information about the chemical identity of the intoxicant is often needed to commence proper antidotal and/or supportive therapy.

A quick chromatographical method has been developed for the analysis of specimens of Araqi for the possible presence of *Argemone maxicana*.

The paper also gives an account of the total secondary metabolites found in *Argemone maxicana* in relation to their possible toxicity and potential risks.

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A RATIONAL APPROACH TO ALCOHOL WITHDRAWAL

R.F. Smith, Brighton Hospital, Brighton, Michigan, U.S.A.

In the beginning, there was nothing. Then there was magnesium applied to each buttock and our patients died in pain. Then came Thorazine and our patients died with a confused smile on their faces. The treatment of

alcohol withdrawal has had a history of pragmatism and fads without benefit of underlying theory and understandable method. Rum fits and delirium tremens remained with us and fatal outcome was not uncommon. Recent clinical insights have made it possible to understand enough of the underlying mechanism to provide a rational, cohesive approach to this medical emergency, potentially eliminating withdrawal seizures and effectively aborting delirium tremens.

Our recent retrospective study of 5,000 alcohol withdrawals demonstrates a direct correlation between vital signs and the intensity of alcohol withdrawal. This study suggests that alcohol withdrawal involves two neurotransmitter systems. Part of the withdrawal syndrome is effectively blocked by beta-blockers indicating a norepinephrine mechanism. Hypertension, tachycardia, diaphoresis, and seizure threshold are among these symptoms. Insomnia, anorexia, perceptual changes, and extraocular effects respond to antipsychotic drugs strongly suggesting a 5-hydroxytryptamine effect. Replacement sedative therapy controls all symptoms observed. A treatment protocol for alcohol withdrawal was developed using this syndrome as a standard against which to titrate sedative dosage which has allowed our facilities to respond directly to patient condition.

Evaluation of clinical records reveal morbidity and mortality below comparison facilities, complications are short lived, and patients ambulate more quickly. An additional advantage is the method and concepts are so simple they can be easily taught to physicians, medical paraprofessionals and students.

THE REACTION OF CLIENTS AND STAFF TO SYVA ON-SITE URINE TESTING IN A METHADONE PROGRAM

D.W. Kinniburgh (1), C. Nutter (2), M. Jenkyns (2) & G. Utarid (2); (1) Dr. Samuel Hanson & Associates Laboratory Medicine, Edmonton, Alberta, Canada; (2) Alberta Alcohol and Drug Abuse Commission, Edmonton, Alberta, Canada.

Urinalysis has been an integral part of the Methadone Program since its inception in 1970. The paper examines the role and ramifications of the SYVA EMITst on-site testing urinalysis technology in contrast to the thin layer chromatography technology used prior to January, 1984. The characteristics of the new technology such as increased sensitivity of the machine to detect drugs, together with rapid turn-about time for results, has the potential to affect and change the staff-client relationship and the Program in general. These factors are studied through the use of a client questionnaire and staff evaluation.

A brief history of Hanson's Laboratory's association with the Methadone Program, together with the advantages and disadvantages of each system, is examined from the point of view of a clinical chemist, the Methadone Team, and the clients they serve.

REACTION OF OWNERS AND SERVERS AT RETAIL BEVERAGE OUTLETS TO AN INTENSIVE DRUNK DRIVING ENFORCEMENT PROGRAM

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During 1984, the Police Department of Charlottesville, a small, isolated university town in western Virginia, initiated an intensive enforcement program involving roadblocks to detect drunk drivers on Friday and Saturday nights each week for 52 weeks. In previous years, the police had used traditional roving patrols for enforcement of drunk driving laws. The first use of the checkpoint technique in Charlottesville was applied in 1984. These checkpoints received a large amount of publicity in local papers. Each Monday morning, a brief article appeared in the paper giving the numbers of individuals stopped, checked for alcohol, and arrested the previous weekend.

This report summarizes data from a survey of bar and restaurant owners and liquor servers conducted in February, 1985. The survey covered drinking establishments of various types: those catering to students as well as those catering to local residents, and those catering to upper-class drinkers as well as those catering to lower-socioeconomic groups. Two classes of industry personnel were surveyed: owners and employee servers (bartenders, waiters). Three topics were covered in these interviews: the actions of the owners, the actions of the employee servers, and the observations of these two groups of the behaviour of their patrons.

RECENT ADVANCES IN KNOWLEDGE: BIOMEDICAL RESEARCH

H. Kalant, Department of Pharmacology, University of Toronto and Addiction Research Foundation, Toronto, Ontario, Canada.

Many new findings have occurred in biomedical research on addictions during the past decade. Four examples will serve to illustrate the great range of directions and potential impact of this research.

The initial clinical studies on genetic factors in alcoholism have been followed by detailed analyses of the classical and molecular genetic aspects of individual components of the total reaction to alcohol. These studies offer the hope of objective tests for identifying high-risk individuals early in life, so that efforts at prevention can be applied earlier and more efficiently.

Recently developed methods have identified separate subclasses of cellular receptors for opiate drugs, each subclass mediating different effects of the drugs. Synthesis of opiod drugs with different affinities for the various receptor types now offer the prospect of an effective but non-addictive analgesic, and of a superior replacement for methadone in maintenance therapy of addicts.

Recent research has shown clearly that alcohol tolerance depends not only on the drug and dose, but also on the behavioural and environmental circumstances under which the drug is consumed. These findings have important implications for the treatment of addiction, since the correction of tolerance and physical

dependence will require deliberate manipulation of the behavioural and environmental factors.

Finally, there have been potentially important findings in relation to physical damage caused by alcoholism. Epidemiological evidence suggests that a small daily intake of alcohol, instead of causing heart and circulatory damage, may actually confer some protection against the risk of fatal infarction. Also, the use of newer scanning techniques (CAT, PET and NMR) has revealed that alcoholic brain damage may be reversible to some degree. Therefore, appropriate use of these techniques may improve the therapy of alcoholism by selecting the optimal time and mode for each patient.

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RECENT ADVANCES IN KNOWLEDGE: EPIDEMIOLOGICAL STUDIES

V. Navaratnam, National Drug Research Centre, University of Science, Minden, Penang, Malaysia.

The paper will review existing epidemiological procedures/techniques for the assessment of substance abuse and their associated problems. Examples of studies utilizing these various approaches will be cited to illustrate the suitability of these techniques.

The paper will then present either global or regional data on availability, pattern of use as well as on prevalence of use. It will also review the profiles of drug-using populations and identify whether there are differences in characteristics in the different parts of the globe.

The impact of substance abuse on the economic, social and public health aspects will be discussed. The efficacy of selected preventive programs will be briefly mentioned.

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RECENT ADVANCES IN KNOWLEDGE: SOCIAL AND BEHAVIOURAL SCIENCES

R.U. Florenzano & A. Pemjean, Facultad de Medicina, Universidad de Chile, Chile.

This review covers the impact of new research on the classical disease model of alcoholism and addictions. From longitudinal (cohort) studies and from clinical, experimental psychology and behavioural assessment research, a continuum or spectrum-disorder model seems to explain available data better than Jellinek's model. Vaillant's natural history studies are used, as well as Nathan, Marlatt and Miller's behavioural research on the subject. The tension-reduction, social learning and cognitive-behavioural models are appraised, as well as psychodynamic constructs about self-image and ego functions, with its applications to self-care and self-help. Data arising from biological research represents important challenges for any partial model. The need remains to find a comprehensive bio-psychosocial model. The issue of controlled drinking is related to the "control paradox". Sociocultural (Roman and Heath) viewpoints are also mentioned. Alcohol and depression studies are used to describe an integrative spectrum approach.

The specific application of the previous research is

then discussed, both to treatment and to prevention. Early diagnosis of problem drinking, as well as risk factor research and about families of alcoholics is mentioned, as well as viewpoints on objectives and evaluation of treatment. Treatment outcome indicators are mentioned, with a focus on social functioning and skills. Self-help and family interventions are used to illustrate these indicators, as well as the assessment of behavioural techniques. Preventive effects are classified in a narrow, middle and wide focus spectrum. Alcohol education is compared with affective education and with health promotion. The overlapping of the latter with health systems planning is underscored. Peer pressure structuring, parent and media influence outcome research are then appraised. The implications for policy planning are finally discussed.

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THE RECOVERY ATTITUDE AND TREATMENT EVALUATOR (RATE) - AN INSTRUMENT FOR PATIENT PROGRESS AND TREATMENT ASSIGNMENT

D. Mee-Lee, New England Memorial Hospital, Stoneham, Massachusetts, U.S.A.

Clinicians face increasing demands to individualize treatment and match patients to the least restrictive and costly level of care. Admission and utilization review criteria: (a) frequently neglect the characteristic denial of alcoholism/drug dependence and psychosocial needs which influence treatment assignments, (b) fail to be flexible or sensitive enough to changes in patient status that could alter the level of care needed.

The RATE was developed as part of a Blue Cross/Massachusetts Hospital Association grant to develop admission criteria for multiple levels of care for alcoholic/drug dependent patients. The RATE is a structured, fixed interval, rating scale that summarizes the clinical assessment of patients. The clinician produces a severity profile of each patient using a 5-point scale in the assessment of five areas pertinent to treatment progress and assignment decisions: (a) degree of denial and resistance to treatment, (b) inability to establish a structured recovery treatment plan, (c) acuity of biomedical problems, (d) acuity of psychiatric problems, and (e) extent of social/family problems unsupportive to recovery.

The RATE is used to differentiate patients for the initial treatment matching and admission decision, but has the added value of sensitivity to patient change to allow ongoing utilization review and individualized treatment planning. It promotes greater comparability of clinician's assessments for quality assurance and research purposes.

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REHABILITATING THE DRINKING OR DRUG IMPAIRED DRIVER: ITS EVOLUTION FROM EDUCATION TO INTERVENTION

J. Siegal, Weekend Intervention Program, Wright State University School of Medicine, Dayton, Ohio, U.S.A.

Alcoholism and drug abuse professionals have been called upon to mitigate the public health and social problems caused by the drinking or drug impaired

driver. In the U.S.A., driver education was the first method used; they then developed specific rehabilitative strategies; and currently, intervention is the favoured approach. The paper will:

Present the evolution of driver rehabilitation effort in the U.S.A. over the past 15 years. It will examine specific approaches and summarize the findings of evaluation studies of their effectiveness.

Describe the evolution of the state-of-the-art Intervention Approach and its differences from prior efforts focusing on its ability to integrate community's criminal justice, health care, and/or specialized alcoholism or drug treatment systems. The results of an evaluation using official driver's records which demonstrated a positive impact on the factors of recidivism and accident prevention will be presented.

Describe the characteristics of a large population of drunk driving offenders. These data have been obtained from an ongoing National Highway Traffic Safety Administration (NHTSA) supported study to evaluate the Intervention Approach. It is a natural history study of some 6,000 DWI offenders convicted during 1983-1988 encompassing south-western Ohio, U.S.A.

The disposition of each case rested entirely with the court. Some 30% were remanded for Intervention; 3% were incarcerated; 15% received a suspended sentence and/or fine; and the remaining 20% were remanded to an educational program or other alternative. The characteristics of this population will be described along with the correlates of judicial sentencing patterns. Data will be offered suggesting the

drinking problems and dependence upon alcohol and other drugs is extensive within this population.

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RELAPSE PREVENTION THROUGH TREATMENT OF PRIMARY DEPRESSION IN ALCOHOLIC PATIENTS

J. Magee & R.C. Rud, Alberta Alcohol and Drug Abuse Commission, Downtown Treatment Centre, Edmonton, Alberta, Canada.

There is some evidence in the literature that treated alcoholics who also exhibit signs of primary depression are more likely to relapse than non-depressed alcoholics. At an out-patient clinic operated by the Alberta Alcohol and Drug Abuse Commission, clients exhibiting symptoms of primary depression have been referred to the medical department for treatment with conventional anti-depressant medication while continuing in counselling for their alcohol problem.

Forty such clients, treated over the past three years, are to be followed up and questioned regarding relapse and current functioning. A comparison group of 40 alcoholic clients, not diagnosed as depressed, will also be followed up. A comparison of relapse rates and current functioning between these two groups will be presented.

A RESEARCH BASED RISK MANAGEMENT PROGRAM TO DETERMINE CHEMICAL USE

M.D. Clark, Chicago, Illinois, U.S.A.

The problem of the impaired nurse and their temporary or permanent loss to the profession as a result of chemical use (alcohol and/or drugs) is of increasing concern.

Although this issue has existed since the beginning of the century, until recently it was denied, or when recognized, was seen as the problem of the individual. Currently, the issue is being approached collaboratively by the profession, administrators, the legal system, peers and the impaired nurse. This study was designed to: identify risk factors associated with the development of chemical dependency, identify measures of prevention to be initiated by the nurse in practice and educational settings, and to locate research regarding the impaired nurse and make recommendations for future studies.

Content analysis was used to examine one hundred and thirty-seven literary items which discussed chemical use by practising nurses - student and graduate. Journal articles, books, newspaper articles, press releases and synopses of workshops were included. Specific questions explored by the study included: what predisposing factors have been identified with the initial and continuing use of chemicals? What preventive measures are recommended? What research has been done regarding chemical uses by student and graduate nurses? And what studies are needed?

Content analysis revealed that the major categories of risk factors are role strain, problems of daily living, enabling by peers and managers, and attitudinal factors. Other less major risk factors were also identified. In the next phase of the study, preventive measures were identified. These were integrated into a risk management model to deter initial and/or continuing chemical use by health care professionals administering drugs. The model includes policies, procedures, educational programs, communications, (inter and intradepartmental and with other institutions and agencies) and other activities.

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RESULTS OF THE TOOLO DETOX CENTER ACTIVITY

S.-L. Säilä, Social Research Institute of Alcohol Studies, Helsinki, Finland.

The Toolo experimental detox center was founded for a period of five years, at the end of 1981. The detox center is administratively subordinated by the City of Helsinki welfare board and it operates in conjunction with a municipal clinic. The police, social welfare and health care authorities bear the responsibility for the internal functions of the detox center, and the State Alcohol Monopoly of Finland provides funding for the experimental project.

The Toolo experimental detox center is designed to offer further treatment mainly for 18 to 50-year olds who have been sheltered due to drunkenness and who are capable of returning to work and benefiting from treatment. Ten percent of all arrests for drunkenness

in Helsinki end up in the detox center. Treatment at the detox center consists of isolation, rest, medication, guidance and referral to further treatment.

Results of the detox center activity show that the number of arrests for drunkenness has not decreased in Helsinki. Despite selection of detox center clients, repeated visits are nearly as common as visits to police cells. Referrals to further treatment are rare and clients are quite uninterested in treatment.

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RNact NURSING CAREPLAN GENERATOR

K.L. Roetter, Martha Washington Hospital Treatment Center, Chicago, Illinois, U.S.A.

Computers in alcoholism treatment have mainly been utilized for business and billing operations and have rarely been seen as a resource for clinicians. RNact is a treatment plan/nursing careplan generating system designed to assist the clinician in providing quality care to alcoholics.

The system provides individual printed reports describing the patient's behavioural medical systems, management goals, interventions and health objectives in conformance with standard treatment practice. Reference data can be easily modified and updated to suit the specific needs of the institution with careplans stored on disk for revision and update on a periodic basis, as well as for statistical analysis and epidemiological research. No computer nor programming knowledge is required of the user.

The program is composed of two main parts, the first module is the Careplan Generator, which directs the user to an entry sequence which creates one or more careplans for a new patient or updates the careplans of patients already in the system. Both current and inactive records are maintained within the system for a complete audit trail, and indexed to increased retrieval speed. These archival features are specially useful for out-patient clinics, recidivous patients, historical evaluation and hospital risk management.

The features included in the Library Maintenance module provide assurance that careplans developed within the RNact system are done at the leading edge of nursing practice. Favourite reference material from periodicals, textbooks or user origin may be added to the library.

RNact enhances staff and facilities planning, reduces costs, provides a stimulating educational medium and an orderly approach to state-of-the-art documentation. Most important, it reduces the paperwork burden in favour of quality patient contact.

THE ROLE OF ALCOHOL METABOLIZING ENZYMES IN ACUTE AND CHRONIC EFFECTS OF ALCOHOL

This work was supported by research grants from the Wilhelm Sander Stiftung and the Deutsche Forschungsgemeinschaft.

D.P. Agarwal & H.W. Goedde, Institute of Human Genetics, University of Hamburg, Hamburg, Federal Republic of Germany.

Several isoenzymes of alcohol dehydrogenase (ADH) and aldehyde dehydrogenase (ALDH), which differ in their molecular and catalytic properties, have been implicated to play an important role in acute and chronic effects of alcohol. Our recent studies have shown that in Japanese, Chinese and other individuals of Mongoloid origin, an inherited deficiency of an isozyme of ALDH (ALDH I) is responsible for the elevated blood acetaldehyde levels producing intoxicating symptoms after drinking mild doses of alcohol.

Our subsequent studies show that acutely high blood levels of acetaldehyde - as the result of isozyme deficiency - are very aversive and prevent alcohol abuse in Japanese.

While a wide prevalence of ALDH isozyme abnormality was found in Asian Orientals, a relatively low frequency was observed among North American Indians. The implications of these data regarding drinking habits and alcohol abuse in native Americans are discussed.

The paper also discusses the role of blood and hepatic

ALDH isozymes in the pathogenesis of alcoholism, alcohol-related tissue damage and fetal alcohol syndrome. Both qualitative and quantitative changes in red cell and liver ALDH isozymes were noted in alcoholics as compared to healthy controls.

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THE ROLE OF MULTI-FAMILY GROUPS IN THE TREATMENT OF CHEMICAL DEPENDENCE

D.M. Cook & J.A. Norton, Martha Washington Treatment Center, Chicago, Illinois, U.S.A.

The use of large multi-family groups of 100 or more participants meeting together to share their experiences in the recovery process has resulted in unexpected success at our facility, a hospital based chemical dependency treatment center. This format has provided a cost effective method of delivering quality services to many individuals, while requiring limited investment of staff time. A search of literature provides no information regarding similar group treatment.

This paper will explore the structure and dynamics of a unique multiple family treatment approach, examining the use of interfamily communications as a powerful tool in the treatment of chemically dependent individuals and their families.

THE ROLE OF PENAL LAW IN DRUG CONTROL - THE EUROPEAN PERSPECTIVE

H.-J. Albrecht, Max-Planck-Institute for Foreign and International Penal Law, Freiburg, Federal Republic of Germany.

The last decades saw a sharp increase in drug-related problems in virtually all European countries. Following the principles of the Single Convention of 1961, penal law is accepted as a means to regulate and control the use of drugs.

The paper will give an overview of the current state of penal statutes regarding drugs in Europe, focusing on the problem of harmonization of the different national policies including the legal framework and law enforcement. Furthermore, crime as well as justice statistics and available research on drug abuse and drug trafficking will be analyzed in order to assess the magnitude of drug problems and effects of the criminal law approach to drug control in the European context.

THE ROLE OF "STANDARD" EDUCATIONAL MESSAGES IN ALCOHOL AND DRUG EDUCATION

W. Buisman, Federation of Alcohol and Drug Centres, Bilthoven, The Netherlands.

In alcohol and drug education campaigns directed to young people, often the important role of clearly

defined (behavioural) messages is stressed.

Which meaning should be given to those "standard" messages in alcohol and drug campaigns?

In this paper it is stated that in general the importance of clearly defined messages on alcohol and drugs is over estimated. "Standard" educational messages are mainly based on the assumption that the educator or change agent decides what should be the desirable behaviour of their target audience. Educators often don't pay attention to the problem of which kind of (psychotropical) behaviour is considered to be acceptable by their target audience.

In this discussion another methodological problem is relevant.

We suppose that educational or communication efforts will have greater impact if there is a close connection with the actual (alcohol and drugs) behaviour of the target audience. When those educational efforts are carried out with mass media channels (film, booklets, posters), this connection is supposed to be a weak one because the target audience is very heterogeneous.

In this case it is very important to communicate a well defined behavioural message.

In most other educational settings however, e.g. (peer) group approaches, educational messages are not primarily important. In those latter situations we claim that "not the message but the way of communicating with the target audience" is important in the first place.

In this paper we will discuss the methodological problem. Also we shall try to define educational messages about alcohol and drugs.

The message problem and the methodological problem will be placed in a broader framework of preventive strategies for alcohol and drug abuse.

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ROLE OF THE BRITISH PRIMARY CARE PHYSICIAN AND THE TREATMENT OF ALCOHOL MISUSERS

J.G. Bligh, Mersey Regional Alcohol and Drug Dependence Unit, Countess of Chester Hospital, Chester, England.

The work of the primary care physician and of the primary care team within the British National Health System is described. This setting provides a unique opportunity to detect and manage alcohol misusers at an early stage in their drinking careers.

How well this is achieved is described and strategies for improvement proposed. The growing importance of a preventative approach in each doctor-patient encounter is highlighted with particular reference to those patients with drinking problems. This form of "opportunistic intervention" is of growing importance for western physicians in their fight against alcohol misuse.

THE ROLE OF THE CHURCH IN CHEMICAL DEPENDENCY RECOVERY - AN INNER-CITY PERSPECTIVE

J. Moore, The Salvation Army Harbour Light Program,
Winnipeg, Manitoba, Canada.

Addiction in the inner-city is a problem which has been with "civilized" man for centuries and is one which continues largely unabated today. Despite the fact that addictions treatment per se has improved, particularly in the last thirty years, there still remains, as far as the inner-city is concerned, a stigma upon those whose lives have been adversely affected by addiction.

This paper deals with the psychological and sociological factors associated with inner-city addicts, with particular reference to the changing complexion of the inner-city scene: younger addicts, and the significantly increased numbers of females seeking treatment at the "skid-row" level.

The relationship of these factors to the incidence of addiction in the inner-city is discussed.

The paper will also give an overview of the work currently being done by church-related agencies in the inner-city, and will particularly focus on the content and administration of the family-oriented Harbour Light program in place in Winnipeg.

A RURAL REGIONAL SYSTEM OF ALCOHOL AND DRUG SERVICES

W. Collins, Shuswap Alcohol & Drug Program, Salmon Arm, British Columbia, Canada.

A system of interdependent Alcohol and Drug Services has evolved in the South Central Region of British Columbia. This evolution began in the early 1970's when communities made a concerted effort to identify problem areas in their communities and developed programs in response to these problems. The British Columbia Alcohol and Drug Commission was struck in 1973 with a mandate to study individual community proposals, and where appropriate, fund such programs on a yearly contract basis.

The South Central Region of Alcohol and Drug Services is a rural system and as such poses unique problems, presents disadvantages/advantages and is noticeably different than an urban system.

The presentation will focus on how the South Central Region meets the needs of chemically dependent people.

SECONDARY PREVENTION STRATEGIES FOR ALCOHOLISM IN A TEACHING HOSPITAL: ROUTINE USE OF THE CAGE QUESTIONNAIRE IN THE MEDICAL WORK-UP

M. Dudgeon & D. Mayfield, Kansas City VA Medical
Centre, Kansas City, Missouri, U.S.A.

It has been demonstrated repeatedly that alcoholics commonly have contact with physicians and medical facilities. Characteristic of these encounters is an inability on the part of the physician to detect, diagnose and appropriately manage these patients. Thus we have a failure at what should be one of the most likely sites for secondary and tertiary prevention of the disease.

Recently the JAMA has focused on this problem with clinical reports and editorial exhortations suggesting routine incorporation of an alcoholism screening questionnaire in the hospital admission work-up. Coincidentally, the administration of the VA Hospital system has mandated screening procedures to enhance the detection of alcoholism among its admissions.

We have been impressed by the large number of patients whose alcoholism escaped detection through one or more admissions to our facilities. We have been concerned about how to improve the performance of medical and surgical services in this regard and felt that the suggested routine inclusion of a standard alcoholism questionnaire should enhance case finding. Since there was little literature to suggest how effective this strategy would be, we undertook a systematic study of the effect of this procedure on the practice of medical house staff.

The CAGE questionnaire, selected for its brevity and effectiveness, was printed prominently on the forms required for the recording of initial history and physical on all patients admitted to the hospital. All medical house staff were given a brief explanation of the questionnaire and matter-of-fact instructions to complete the instrument as part of each work-up. We predicted that the presence of the questionnaire would raise the level of awareness of alcoholism. We compared the rate of detection of alcoholism for comparable periods before and after institution of the questionnaire. Results will be discussed.

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SELF-ESTEEM OF ADDICTED NURSES AS MEASURED BY THE ROSENBERG SELF-ESTEEM SCALE

M.K. Doyle, School of Nursing, University of Pittsburgh, Pennsylvania, U.S.A.

This study investigated the relationship between personal and professional self-esteem of addicted nurses. A descriptive correlational design was employed using the ex post facto method. The sample consisted of (n=15) nurses belonging to an addicted nurses support group who voluntarily consented to participate after receiving assurances of confidentiality and anonymity. The data collection was done anonymously. The Rosenberg Self-Esteem Scale, a reliable and valid instrument, was used to measure personal and professional self-esteem. A demographic questionnaire was developed to obtain background information such as age, race, marital status, nursing and addiction histories. The Pearson Correlation

Co-efficient was used to evaluate the self-esteem. It provided a value of $r=0.59$ which demonstrated a positive moderate correlation at ($p<0.5$).

The major finding of this study is that there is a positive relationship between personal and professional self-esteem of addicted nurses. Implications for nursing include practice, education and research.

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SEPARATION OF MALE AND FEMALE CLIENTS IN A TREATMENT FACILITY - THE MALAYSIA EXPERIENCE

Y.W. Scholer, Yayasan Pusat Pertolongan, Perak, West Malaysia.

Female rehabilitation has been a constant source of anxiety and problems in therapeutic settings.

There can be no doubt as to certain benefits of both sexes being in rehabilitation in a co-system.

In Malaysia there are serious problems which make it necessary to have separate rehabilitation programs for male and female chemical dependents.

Racial customs, religious observations and therapeutic requirements led to the decision of separate rehabilitation facilities.

After two years experience, we reflect on this and come to an insight of the effects of such a move.

The move is unique in that it was made by a male

dominated organization and its own staff members were split on the wisdom of the decision.

The paper intends to present the background against which the decision was made, the results of the experiment and the conclusion arrived at.

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SEX DIFFERENCES IN CIGARETTE SMOKING

R.G. Ferrence, Addiction Research Foundation, Toronto, Ontario, Canada.

Studies of cigarette smoking indicate that rates of use, heavy use and cessation among men and women vary by age, social class and geographic region. Previous attempts to explain these differences have not been wholly satisfactory because they do not account for variations over time. For example, sex differences in cessation have diminished in recent years and have disappeared in some age categories. The purpose of this study is to account for these differences using a diffusion model that has been used to describe the adoption and discontinuance of various innovations.

Data from the Canada Health Survey are used in a reconstructed cohort analysis to establish estimates of age-specific rates of cigarette smoking for males and females over a period of fifty years. These estimates are used to examine the role of sex differences in economic power, gender role, and health beliefs about smoking as predictors of sex differences in smoking behaviour.

Results indicate that social structural variables are important predictors of variations in rates of smoking for men and women. The implications of these findings for prevention programs and public health policy are outlined.

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SHORT-TERM PSYCHODYNAMIC PSYCHOTHERAPY IN THE THERAPEUTIC COMMUNITY

W. Burian, Anton Proksch-Institute, Vienna, Austria.

The paper gives an overview of the history of short-term psychodynamic therapy and its application in the therapy of the addictions.

Psychodynamic group therapy in the community setting is described and its combination with focal intervention technique is discussed.

An outdoor psychotherapeutic approach is the other element in our strategy. Technique and range of this special psychotherapy is discussed and demonstrated with case material.

The Kalksburg experience shows that a majority of alcoholics can be helped effectively.

SIMPLIFICATION DES TESTS POUR LE DIAGNOSTIC DES TOXICOMANIES

M. Henneberg, Laboratoire de Toxicologie, Centre Médical d'Enseignement Post-Universitaire de Varsovie, Bydgoszcz, Pologne.

Les programmes de prévention et traitement de la pharmaco-dépendance exigent pour que soient développées les méthodes adéquates de diagnostic. En particulier les méthodes d'analyse d'urine dites "field tests" sont très recherchées. Leur simplicité, rapidité et frais bas d'installation et mise en oeuvre facilitent de façon considérable le screening en masse des urines.

On reverra à ce sujet les différents tests d'orientation et de screening, y compris les avantages et les inconvénients.

On évaluera et comparera sensibilité, spécificité, validité et les coûts de différents tests pour la détection de la morphine dans urines, y compris RIA, EMIT, HI ainsi que le notre nouvel test d'orientation.

Ce dernier test, basé sur l'extraction de la morphine à l'aide d'une baguette de résine cation-échange, est appliqué au diagnostic de la toxicomanie héroïnique en Pologne.

Les résultats obtenus jusqu'à présent prouvent, que notre test soit suffisamment sensible et valide pour le but de diagnostic et contrôle des patients étants en état sous l'influence du stupéfiant.

SMOKING HABITS OF MANITOBA SCHOOL CHILDREN - 1985

J. Manfreda (1), M. Thomson (2), M. Clark (3), D. White (4) & A. Skuba (4); (1) University of Manitoba, Winnipeg, Manitoba, Canada; (2) Manitoba Lung Association, Winnipeg, Manitoba, Canada; (3) Health and Welfare Canada, Winnipeg, Manitoba, Canada; (4) Health Promotion Directorate, Winnipeg, Manitoba, Canada.

The results of a survey on the smoking habits of Manitoba school children are reported. A sample of 10,000 children from grades 3 to 12 was used for this survey. The sample is representative in each of the eight health regions in Manitoba. The factors analyzed include amount smoked, regional variations, gender differences, age of smoking onset, parental and peer smoking behaviour, and expectations of future smoking behaviour.

This study will serve as a baseline data base for the evaluation of smoking prevention and cessation programs. It will also indicate specific high risk target groups for use in future programming.

SMOKING, DRINKING AND DRUG USE AMONG GREEK HIGH SCHOOL STUDENTS.

V. Koutras, M. Marselos, T. Hyphantis & C. Fragide
Department of Pharmacology, Medical School, University
of Ioannina, Greece.

The usage, attitude and knowledge on tobacco, alcohol and drugs were examined by a survey among 8,000 high school students in Athens (population: 3,000,000), Patras (200,000) and Ioannina (70,000).

The percentage of smoking boys in the 12th grade varied between 44% and 49% in the sample of all three cities, whereas 32.5-46% was found for girls. In the 9th grade, the values were 17.5-24.5% for boys and 18.4-22.1% for girls. The overall daily smoking of boys exceeds that of girls.

Regular use of alcohol in the 12th grade students was 3.2-4.6% for boys and 0.9-2.7% for girls. In the 9th grade, respective values were 0.7%-1.2% and 0.1-1.1%. Generally boys exceed girls, with the exception of the 12th grade in Athens, where occasional use is almost similar for both sexes.

Regular use of drugs is very low among students of the 12th grade (<1.5%) as well as of the 9th grade (<1.5%). Higher rates are found when single trials, occasional use and regular use are taken into account (12th grade 6.2-10% and 9th grade 2.1-3.5%).

The overall knowledge of the students for the hazards of smoking were quite satisfactory, in contrast to the great ignorance they have on alcohol and drugs. As

their attitude towards the social phenomenon of drug abuse, the general view expressed favours measures against trafficking of illicit drugs, such as imprisonment of the dealers.

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SMOKING, HEALTH AND POLITICS - THE NEXT DECADE

M.M. Daube, Health Promotion and Education Services, Health Department of Western Australia, Perth, Australia.

The magnitude of the smoking problem internationally is well established, and there is broad agreement amongst international health agencies as to the approaches necessary for its resolution. Appropriate action would have been taken long ago but for the increasingly determined, cynical, and skillful resistance of the tobacco industry.

Even despite the tobacco industry's best efforts, some encouraging trends can be perceived since the landmark first reports on smoking of the Royal College of Physicians of London (1962) and the U.S. Surgeon General (1964).

This paper reviews international developments in smoking trends, smoking control, and the different approaches of the tobacco industry.

The paper then considers likely developments over the next ten years in terms of smoking trends, smoking control initiatives and their outcomes, and the governmental and political responses to the smoking

problem: it sets out some strategies likely to be adopted by the tobacco industry in both developed and developing countries, and means by which those concerned for public health can pre-empt and counter these.

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SOCIAL AND HEALTH ISSUES: THE U.S. SPIRITS INDUSTRY APPROACH

P.F. Gavaghan, Distilled Spirits Council of the U.S., Washington, D.C., U.S.A.

Alcoholism, chronic problem drinking and other forms of abusive drinking are not new problems in the U.S.A., nor have they gone unregarded or without socially responsible responses from the U.S. distilling industry. What is new about such social and health problems is that official and public awareness has been markedly raised, together with ambivalence and confusion concerning approaches to prevention, intervention and treatment issues.

Supporting and communicating the efforts and findings of many professional health experts and organizations, the spirits industry has focused on the comprehensive systems approach to complex problems; drunk driving; alcoholism as a treatable illness; drinking during pregnancy; strengthening and extending the moderation norm among those who choose to drink; responsible decision-making on use, abuse and non-use for adolescents; medical and lay intervention with chronic heavy drinkers; and detailed research into the mechanisms involved in alcohol use and abuse.

Major research studies suggest there is good potential in adoption of viable prevention, intervention and treatment concepts on a wider scale. DISCUS public information and support programs, as well as projects it supports as a member of the industrywide Licensed Beverage Information Council, have been fostering these concepts in the areas of primary, secondary and tertiary prevention.

The paper also gives a summary of DISCUS policies addressed to these health and social problems, as well as various major approaches to primary prevention.

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SOCIAL AND PUBLIC HEALTH ISSUES

B.M. Walsh, Department of Political Economy, University College, Dublin, Ireland.

The economic model generally regards the individual as the best arbiter of the pattern of consumption that will maximize his welfare. It is, however, widely recognized that unfettered individualism in the use of certain substances would have very serious implications for society and the public finances as well as the individual's own health and well-being. This paper spells out the key issues arising from these considerations in regard to alcohol, drugs and tobacco.

The place of tobacco and alcohol in household and national budgets around the world is discussed. The importance of employment in the production and distribution of these substances is surveyed. The effect of drinking, smoking and drug abuse on public

health systems is related to the fiscal contribution of taxes on these substances.

The policy dimension of the paper lies in the attempt to establish which approaches are likely to prove cost-effective. While substance abuse imposes costs on society, so too does the attempt to regulate and reduce this problem. An important contribution can be made by economic analysis to achieving balance in this area.

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SOCIAL ORIGINS OF ALCOHOLISM IN WOMEN: MIRAGE OR METHODOLOGICAL MEAGRENESS?

L. Nadeau, Certificat de toxicomanies, Université de Montréal, Montréal, Québec, Canada.

The review of the literature suggests that life events play a role in the social origins of female alcoholism.

Most studies which bring forth this hypothesis do not use life event scales. As a result, definitions vary from one study to another: events may have taken place years before the beginning of excessive drinking or after the onset of symptoms; retrospective reinterpretation may occur, particularly in view of the stigma attached to female alcoholism. In the few studies using scales, the measures adopt the respondent's perspective. The limits of these scales has been pointed out: the brief and imprecise description of events; the identical scoring, whatever the meaning of the event; the contamination of the independent variable by the dependent variable; and the effects of spurious links.

No study has established causal links between life events and alcoholism in women. Moreover, longitudinal data on alcoholic men suggest that alcoholism in the family is the only predictive factor of male alcoholism. No comparable data are available for women. Nevertheless, considering the verbal reports of alcoholic women repeatedly coming forward with such aetiological factors, until a method using the researcher's perspective is used - of which the Brown and Harris' methodology is the best example - it is premature to close the dossier.

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SOCIAL SETTING DETOXIFICATION TREATMENT PROGRAM OF THE SALVATION ARMY: MEETING A COMMUNITY NEED

R.K. Ganguly, The Salvation Army Shield of Detox and Reintegration Treatment Center, Kansas City, Kansas, U.S.A.

In recent years, social setting detoxification has been accepted in alcoholism treatment. The primary thrust is to provide safe and comfortable detoxification treatment to patients who do not need services for acute withdrawals and coexisting medical and psychiatric problems.

This paper presents The Salvation Army Social Setting Detoxification Program located in Kansas City, Kansas, U.S.A. This unique program is providing treatment to persons with alcohol and other drug problems. It describes the following areas: (1) program philosophy and objectives, (2) patient management services, (3) emergency medical and psychiatric backup services, (4)

patient oriented services, (5) support services, (6) post detoxification services, (7) program staffing and training, and (8) future perspectives.

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SOLVING THE ALCOHOL-CRASH PROBLEM: THE LIMITS OF DETERRENCE AND THE NEED FOR ALTERNATIVE COURSES OF ACTION

A.C. Donelson, Traffic Injury Research Foundation of
Canada, Ottawa, Ontario, Canada.

The alcohol-crash problem is the sum of deaths, injuries, disability, and other human and economic losses from traffic crashes due to alcohol-impaired driving. The cornerstone of traditional efforts to reduce alcohol-crash losses has been law based punitive measures to deter people from driving after drinking too much. Evidence that deterrent forces have failed to produce hoped-for loss reductions continues to mount. The limits of deterrence are shown by the short-lived effects of intense "drunk-drive crackdowns" and the persistence of alcohol-crash problems despite sustained legal countermeasures especially in Scandinavian countries.

That deterrent forces alone will not suffice to reduce the alcohol-crash problem is now more widely accepted. That alternative courses of action not only are needed but also must receive support commensurate with the magnitude of the problem is not yet reflected in policies or programs. This paper argues for the development and adoption of such courses of action - some in conjunction with the criminal justice system, other

independent of on-going legal or administrative processes.

Alternative courses of action include substantial investment in rehabilitative programs and facilities for so-called problem drinkers and alcoholics (for which the criminal justice system remains the primary case-finding means); implementation of programs appropriate to each of the diverse subgroups of offenders; and a shift in emphasis to community-based initiatives. Data will be presented indicating that Ontario's 1983-1984 province-wide program using the latter approach has produced a significant effect in decreasing alcohol-crash losses.

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SOME ASPECTS OF ALCOHOLIC DEPENDENCE AND DRUG ADDICTION

I.K. Al-Adhmawi, Ibn Rushid Hospital, The Medical Centre for Treatment of Alcohol and Drug Dependence, Baghdad, Iraq.

One hundred consecutive patients admitted to Addiction Treatment Medical Centre of Ibn Rushid Psychiatric Hospital were studied. Their drinking behaviour, residence, religion, marital status, professions, and social background were analyzed.

One in ten admissions was due to drug addiction; the rest were chronic alcoholics. The study includes an evaluation of cultural factors, the clinical significance of alcohol withdrawal symptoms and the management of addiction in a developing society.

Results indicated that alcoholic dependence is a problem for males around the age of 40 who have been drinking for 15 years, live in cities, are married, and have a regular salary. The drug abuse is a small problem; it is a hospital staff phenomenon, common among nursing and medical professions.

The practical and clinical implications of the findings are discussed with particular reference to developing countries.

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SOUTH REGION SMALL BUSINESS STUDY

D. Peterson & E. Coward, Alberta Alcohol and Drug Abuse Commission, Lethbridge, Alberta.

Fifty-one small business owners and managers, those directly involved with the directing and supervising of employees, were interviewed in six separate dynamic focus group discussions held throughout Southern Alberta. The focus of the discussion was to talk about concerns as business people and how to identify and deal with performance problems at work.

The resulting content analysis showed strong evidence that small business owners and managers spend considerable time developing a sense of unity and family within their workplace. It also indicated, that in spite of this family feeling, employers are reluctant to get involved in their employees' private lives and feel inhibited by a fear of exceeding their authority as employers. This fear appears to create a great deal of anxiety when an employer finds he must

confront an employee about a performance-related problem.

This study also suggests the hypothesis that an employer seeks confirmation and some form of approval from other employees to reduce his anxiety and to validate his action against a problem employee. This is one of the areas suggested for further research.

The evidence presented by this study leads the researchers to believe that any program approach toward small business should make use of some family dynamics concepts, and should take great care to build upon the management's work already in process toward maintaining this family feeling.

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"SPIRITUAL RECOVERY MAKES THE DIFFERENCE" (A COUNSELLING MODEL FOR ALCOHOLIC CLIENTS)

J. Hengel, Counselling Services, Alberta Alcohol and Drug Abuse Commission, Calgary, Alberta, Canada.

In keeping with the ideas of Dr. Carl Jung, as relayed to a patient of his in 1934, treatment for the alcoholic is shown in this paper to be based on a spiritual experience.

The paper deals with a method of assisting the addicted individual toward whole-person recovery. Spirituality is seen as the integrating factor, and discovery of one's spiritual dimension portrayed as possible and ongoing.

The 12 steps of AA are used as basic tools for counselling the alcoholic in his/her spiritual journey from grandiosity to reality, distrust to trust, shame to self-affirmation, and grief to acceptance of loss. Appropriate change objectives are individually chosen and action patterns arrived at.

Questionnaires used for self-assessment throughout a series of interviews will be available.

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STAFF PERCEPTIONS OF CLIENTS AND TREATMENT DECISIONS IN A DETOX

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"Success" in alcohol and drug treatment has traditionally been regarded as dependent chiefly on such characteristics as motivation, education, and socioeconomic status. The influence of alcohol and drug counsellors' reactions to their clients has only recently become a subject for investigation.

This paper proposes to discuss the relationship between staff perceptions about clients and decisions about treatment in an in-patient detoxification centre. Data is being collected on staff beliefs about client motivation, cooperation, intelligence and attractiveness. The dependent variables being measured include length of stay, type of referral, quality of charting, client satisfaction, and program completion.

Since the detox provides a multi-drug withdrawal program, it will also be possible to compare staff perceptions of clients labelled "alcoholics" with those seen as "narcotic addicts" and "prescription drug abusers". Informal data indicates that these types of judgements made by staff do have an important influence on treatment decisions.

The discussion of the results will emphasize the need for staff training.

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STAND UP AND BE COUNTED: PROMOTING A SMOKE-FREE GENERATION IN CANADIAN PHARMACIES

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In 1984, the Canadian Pharmaceutical Association and Health and Welfare Canada launched a collaborative program to encourage the promotion of a smoke-free generation in Canada's 5,500 pharmacies. Pharmacists were invited to voluntarily participate in the program at one of three possible levels. Level one involved displaying educational and promotional materials favouring a smoke-free lifestyle. At level two, the pharmacy becomes a smoke-free area and tobacco products are less prominently displayed. At level three, no tobacco products are sold in the pharmacy, and an award

for community service, promoting a smoke-free generation, is displayed in the pharmacy.

Following an initial mailing, 35% of pharmacies were participating in the program, 19% at level one, 9% at level two and 7% at level three.

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STIMULATION OF BETA ACTIVITY OF THE BRAIN TO CURE CHRONIC DRUG ADDICTS AND ALCOHOLICS

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Beta activity in EEG is the index of alertness of a man. It has been proven that alertness of the brain increases or decreases during the periods of maximum storms. As the beta activity is the integrated output of overall neuron activities focused at the hypothalamus, a simple technique has been developed to create artificial resonance in phase with the beta activity of the brain to improve alertness.

Amplified signals of the beta activity of EEG are fed to the X-plate of an oscilloscope. A coil of radius 20cm, wound 5000 times and fixed in a gyroscopic frame is fed with a beat frequency oscillator and connected to the Y-plate of the CRO. Suitable adjustments show Lissajous Figures on the screen and insure that beta pulse and superimposed signals interfere constructively to stimulate beta activity. After 15 minutes of exposure to this stimulation for two weeks, chronic drug addicts and alcoholic patients are permanently

cured. Results have been verified on 20 patients of various degrees. This surprising result is obtained probably because the stimulation of beta activity may improve the sympathetic and parasympathetic nerve patterns thereby monitoring CNS to yield logical control of brain output.

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THE STRAIGHT DOPE: A COGNITIVELY BASED PSYCHOSOCIAL APPROACH TO DRUG AND SUBSTANCE ABUSE INTERVENTION

L.A. Pagliaro, Faculty of Pharmacy, University of Alberta, Edmonton, Alberta, Canada.

Drug and substance abuse are significant worldwide health and social problems that have not been easily remedied despite significant attention and effort. This has been largely due to lack of attention to their multifactorial etiology and the individual characteristics of the abuser when planning and implementing intervention.

An apparently successful drug and substance abuse program has been developed and implemented for inmates at a Canadian maximum security prison. The program utilizes a cognitively based psychosocial approach to drug and substance abuse intervention.

The program is based on four pre-suppositions: (1) that drugs and substances for abuse will always be available; (2) that drug and substance abuse is in large part a reactive defence mechanism; (3) that ultimately the decision to abuse or not to abuse drugs and/or other substances must be a personal (individual)

decision; and (4) that as long as no harm comes to others, an individual ultimately has the right to choose whether or not to abuse a specific drug or substance. These pre-suppositions are discussed in terms of derivation and relevance. The characteristics of the abuser, who participates in the program, are also identified and discussed.

The paper presents an overview of the program including goals and focus, methods of intervention, topics covered, methods of evaluation and preliminary results.

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STRATEGIES AND MODALITIES FOR THE TREATMENT OF DRUG DEPENDENTS: APPLICATIONS, BENEFITS, DISADVANTAGES

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The paper is focused on four major parts: (1) general treatment objectives, (2) description of selected treatment modalities, (3) evaluation of these modalities and (4) strategies for further improvement of outcome.

In the first part objectives are specified which are independent of a specific treatment modality: cessation of illicit drug use and accompanying drug behaviour, social integration, physical and emotional health and active relapse prevention. In the second part, major treatment modalities from different parts of the world are described including maintenance, substitution and

abstinence approaches. These descriptions focus on: type of treatment activities, objectives, staff, duration of treatment and outcome.

The third part of the paper presents, from a therapist's and health planner's point of view, evaluation criteria illustrated by some selected treatment modalities. Finally, general strategies for improving treatment services and outcomes are discussed.

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STRESS, THE FAMILY ENVIRONMENT AND MULTIPLE SUBSTANCE ABUSE AMONG 7TH GRADERS

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A survey assessing familiarity with and use of alcohol, nicotine and cannabis was conducted with 361 7th graders. They also completed life events and daily hassles schedules, a brief version of the Moos Family Environment Scale, a coping scale and an anxiety scale, which yielded scores that were correlated with use of the three substances, separately and combined. Graded questions about each substance were found to produce acceptable Guttman scales, which were then used as target variables in regression analyses. A nine-item multiple substance use scale incorporating three parallel graded questions for each substance also produced a Guttman scale.

The substance most frequently used alone experimentally

was alcohol. Among students familiar with and using more than one substance experimentally, alcohol and nicotine occurred together most often. Students who used alcohol, typically also used other substances while those who used nicotine, often did so without using other substances. Cannabis was familiar to and used only by those students who also used other substances. The three substance usage scales were intercorrelated 0.35 to 0.52. The first significant predictor for all three substances separately or together was the number of significant life events. A measure of daily hassles and the cohesiveness score from the Moos scale also contributed significantly for multiple use and for nicotine and cannabis. Alcohol use, however, was predicted by family conflict, not cohesiveness. The largest multiple correlation (0.49) accounted for in a regression was for the multiple use scale. The highest mean life events value (5.6 of 11 events) was obtained from the subgroup of 30 users of all three substances. This group of multiple users had significantly more stress and a less supportive family environment than groups of students who used alcohol alone, nicotine alone, or alcohol and nicotine together. Coping and the anxiety measures did not predict substance usage significantly.

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STUDENT MATCH: SUBSTANCE ABUSE PRIMARY PREVENTION PROGRAM

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The integration of primary prevention for kindergarten to 4th graders and senior high school students, in the

area of substance abuse, is the unique focus of the Match Program. The Junior Match is intended to develop positive self-esteem, a drug-free environment, recreational skills, a feeling based relationship and unconditional positive regard. These are targeted in relation to frequent data suggesting that substance abuse is directly related to, "developed feelings of poor self-esteem", "drug using role model", "need for acceptance" and "lack of alternatives".

The Senior Match receives an experimental education program directed at primary causes of adolescent drug abuse. Extensive programming is offered in communication skills, understanding and nurturing trust, decision making, problem solving, along with developing a strong sense of group. The remaining skills shared are parenting and recreational skills in working with younger children.

The minimum of one and a half hours per week of recreational time when the senior and junior are together is always away from the junior's home environment and directed at building a caring relationship, sharing feelings, developing positive attitudes toward self and others.

The program guide is available to define the goals of the program and each training segment. Suggestions are also made about conjunctive programs, resource materials and variations considered. Student Match is presently offered in Manitoba, Minnesota, North Dakota, Ontario and Nova Scotia.

STUDIES ON ALCOHOL CONSUMPTION AND CIRRHOSIS OF THE LIVER

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Alcoholism is a growing problem all over the world. It is a global phenomenon including countries of Asia, Latin America and Africa.

Cirrhosis of the liver is a disease of man - the result of many different kinds of prolonged liver injury. It is thought to be caused by a variety of factors, in particular, alcoholism.

It seems that it takes 10-20 years of drinking to produce cirrhosis, and although some increase of prevalence of cirrhosis may be found in people consuming 80ml of ethanol/day, a really striking increase comes with alcoholics who consume 150ml/day or more. As the first place country in the "Drinker's League", France consumes 14.8 litres of 100 percent ethanol per inhabitant per year with the world record of wine consumption and 32 cirrhosis deaths per 100,000 people. The fourth place country, West Germany consumes 12.7 litres with the world record of beer consumption and a death rate of 25.1. In sixteenth place, Canada consumes 9.1 litres with a death rate of 16.7. The eighteenth place country, Poland, consumes 8.7 litres with the world record of spirits consumption and has a death rate of 12.3. In nineteenth place, the U.S.A. consumes 8.7 litres with a death rate of 14. In twenty-fourth place, the U.K. consumes 7.1 litres and has a death rate of 3.

Poland, during 1981-1983, saw a 150 percent increase in the price of alcoholic liquors and a control of alcohol consumption. This has caused the significant drop from 8.7 to 6.7 litres in alcohol consumption and the drop from 12.3 to 9.8 in cirrhosis death rate.

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A STUDY OF SELECTED PSYCHOSOCIAL CHARACTERISTICS IN WESTERN MANITOBA WOMEN WITH DRINKING PROBLEMS

B.C. Hicks, Manitoba Department of Health, Brandon, Manitoba, Canada.

The purpose of this study was to examine a group of women with drinking problems to determine the level and relationship of the psychosocial characteristics of self-concept, anxiety, traditional orientation and androgyny.

Studies of Canadian women with drinking problems have been carried out on urban women. The women in this study were rural. Some comparisons were possible with other Canadian studies. An equal size control group was included.

Initial data indicated that the concept of androgyny may be worthy of further study.

The paper confirms some other research findings on women with drinking problems emphasizing, again, the need for special treatment approaches for women.

SUBSTANCE ABUSE - IMPROVING EVALUATION OF PEER PREVENTION PROGRAMS

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Substance abuse prevention programs in American high schools have undergone a cycle of expansion and decline. Recently, a renewal of interest has centered on life development skills and peer counselling intervention. Literature review indicates a need for more research on predictive change models and a greater emphasis on evaluation design which include identification of specific situational needs, local issues, program implementation, monitoring, and post program participant tracking methods.

In one particular state, peer prevention programs have lacked a research base. This study will describe a preliminary step to develop a data base for one non-urban high school program reassessment and evaluation. Three instruments focusing on interpersonal communication, self management leadership, and anger communication will be administered. Appropriate hypotheses will be formulated to compare consistent, inconsistent, and non-program participation students. Descriptive statistical techniques for computer analysis and findings will formulate the basis for more systematic planning of program design, implementation monitoring, and outcomes study over the next four years. This high school student population is not yet experiencing critical maladjustment or risk in relation to substance abuse.

SUBSTANCE ABUSE IN THE MOOD DISORDERS: MANAGEMENT AND OUTCOME IN AN AFFECTIVE DISORDERS CLINIC

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High incidence of substance abuse occurs in affect disorders. Many patients have a working hunch that their substance use is the sovereign treatment for their mood swings. This paradox in practice leads to misunderstanding, manipulations, and failure to improve. Validation of slow progress was secured in the study of a half sample of the Affective Disorders Clinic (ADC) by Lewis, Sheldon, and Lewis reported elsewhere. The study showed increased noncompliance, parasuicide, hospitalization, and forensic involvement.

The covert disagreement on therapy noted above led to staff strain. An alternative approach was sought.

Staff came to the realization that abusers were essentially fellow travellers rather than strictly involved in treatment. They redefined therapeutic responsibility. The patient was given, by contract, responsibility for control of his substance use, and the option of referral to AADAC. The clinic would remain responsible for his mood therapy and the initial handling of relapse. The contract specified that manifest noncompliance would result in discharge from ADC. Readmission would only be by formal reevaluation session.

Outcome of patients contracted, showing degrees of success achieved in clinical and psychosocial parameters, will be presented.

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SUBSTANCE ABUSE: PUBLIC HEALTH CONSIDERATIONS

C. Suwanwela, Chulalongkorn University, Bangkok, Thailand.

Since health hazards are among the major concerns in the problem of substance abuse and since many intervention measures fall within the health sector, public health plays an important role in our fight against this problem. Political will and proper policy are essential elements. Awareness of the problem and proper understanding by the policy makers and top political leaders are therefore mandatory.

The availability of proper information is essential. The multi-faceted nature of the problem and the differences among various substances in different settings and time as well as the roles of culture and value must be understood. The nature and extent of the problems of both epidemiological and value-laden considerations must be adequately and timely available.

Policies regarding substance abuse are closely linked with other national policies, for instance: therapeutic drug provision and control, revenue, public welfare, social justice and economic system. The organization and level of policy makers regarding substance abuse in the national hierarchy is therefore essential and reflects the willingness to fight against substance

abuse. Very often this feature determines the success or failure of the control programs.

The prevention and control strategies and actions usually fall outside the health area. Conceptual and material support from the health sector such as laboratory and information systems can however contribute. For interventions aimed at those already in the problem, health measures play an important role, at least in certain stages in the long process. Development and breakthroughs in health technologies have contributed to treatment programs. Nevertheless multisectoral and interdisciplinary cooperation is very important.

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SUBSTANCE USE OF PREGNANT AND NONPREGNANT ADOLESCENTS

P.K. Pletsch, College of Nursing, University of Illinois, Chicago, Illinois, U.S.A.

Health promotion and disease prevention for mothers and babies at risk for health problems were the foci for this study. Since review of the literature suggests that substance use effects perinatal risk, this study described and compared alcohol, drug, and tobacco use of pregnant and nonpregnant urban high school students.

This study took place in four public high schools in Chicago. A paper and pencil questionnaire of health-related activities was administered to 432 female students. Of this group, 119 were pregnant and 313 were nonpregnant. Statistical analyses of the data

were done using analysis of variance, factor analysis and product-moment correlational techniques.

Comparisons of pregnant and nonpregnant subjects for the use of 13 different substances showed groups to be quite similar. The most frequently used substances were alcohol, cigarettes, and marijuana. The percent of all subjects who reported any use of these substances was 59%, 55%, and 37%, respectively. The percent of students who reported any use of other 13 substances was relatively low. Analysis of variance for differences in use between pregnant and nonpregnant subjects resulted in significant differences for cigarette use only. The mean score for pregnant subjects was larger. Subjects were also asked about the risk of harm to babies if pregnant women use substances. There were no differences between group and all thought babies were at great risk.

The results provide some indication that pregnant teens were smoking cigarettes more than nonpregnant teens. In this study, there was no indication that pregnant subjects were using substances any less than their nonpregnant counterparts.

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SUICIDE ATTEMPTS AMONG NIGERIANS: THE USE OF CHEMICAL AND PSYCHOTROPIC DRUGS

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In a six-month prospective study of 39 cases attempted suicide in Ibadan city of Nigeria, 30 (76.9

were less than 30 years old while 36 (92.3%) were below the age of 34. The male to female ratio was 1.4:1 with students of both sexes forming the largest occupational group. Contrary to earlier findings in Nigeria, chemicals and psychotropic drugs were found to be the common methods used. Also, the use of psychotropic drugs was found to be more common among those with formal education. The implications of these findings are discussed.

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SUICIDE IDEATION AND THE ALCOHOL DEPENDENT PERSONALITY: IMPLICATIONS FOR TREATMENT

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This three-part paper addresses the phenomenon of suicide ideation and alcoholism. The first part explicates current hypotheses that show positive correlation between suicidal behaviour and alcoholism. The second part identifies the assessment procedures for identifying a suicidal individual. This paper concludes with an examination of psychotherapeutic approaches that decrease the elevated perturbation of a highly suicidal individual.

The current research on relationships between alcoholism and suicide ideation have adopted three theoretical frameworks. The first framework proposes the hypothesis that heavy drinking is a substitute for suicide and that alcoholism can be considered chronic suicide behaviour. The second framework purports that alcoholism and suicidal behaviour are effects of the

same cause. The third framework adheres to the position that alcohol consumption is a major precipitating variable in suicide attempts.

The second part of this paper will focus on qualitative and quantitative measures for assessing suicidality. The Weisman and Worden risk-rescue scale and the Beck, Schuyler and Herman intent scale will be considered as tools for making judgments for the lethality of a suicide attempt or suicide ideation.

Psychotherapeutic approaches for working with lethally-oriented individuals will be examined in relationship to each theoretical position. Treatment goals and therapeutic modalities will be considered that will assist the therapist/counsellor in decreasing the constriction and perturbation of suicide ideation.

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SUPERVISED DISULFIRAM: A VIABLE ALTERNATIVE TO LICENSE SUSPENSION FOR DWI CONVICTION

H. Murray, Alcohol and Drug Education Centre, Kingston, Ontario, Canada.

This paper proposes that the Ontario Highway Traffic Act (Chap. 198, Sec. 26, 1980) which deals with the "suspension on conviction for certain offences" of a person's drivers license, be amended as follows: (1) To make the satisfactory completion of an approved program of alcohol education, as it relates to drinking and driving, a mandatory prerequisite to obtaining a driver's license; (2) To allow persons convicted of drinking and driving offences to elect the supervised

ingestion of an antialcoholic drug (e.g. liquid Disulfiram) as a means of regaining driving privileges.

The paper suggests that drinking and driving offences in general be reduced through specially developed drinking and driving education programs that are specifically designed with the objective of giving our society a sense of dissatisfaction with drinking and driving behaviours. It also suggests that recidivism in particular could be reduced through the combination of alcohol education, counselling, psychotherapy and the chemical incapacitation of convicted offenders with antialcoholic drugs. The paper posits that alcohol education would have a greater effect on individuals if it were presented before they had started to combine drinking and driving, and before these behaviours became reinforced by their entire social environments and incorporated into their value system. It also suggests that supervised chemical incapacitation by itself can prevent recidivism in the short run, but that its greater value lies in the fact that it permits more effective rehabilitation by allowing therapeutic interventions to take place during a period of abstinence. Thus individuals are better able to assess their own conditions and to examine the consequences of impaired driving for themselves, and others who use the roads.

SUPPLY-SIDE PREVENTION: BAR AND RESTAURANT ALCOHOL ABUSE POLICY AND TRAINING PROGRAMS

J. M. Schaefer, Office of Alcohol and Other Drug Abuse Programming, University of Minnesota, Minneapolis, Minnesota, U.S.A.

The perspective taken in this presentation is that responsible business practices are an important new area of alcohol abuse prevention. The role of alcohol suppliers has never been under more pressure in national political arenas than during the past five years. In North America lawsuits by victims of drunk driving crashes have rippled through the retail liquor industry and insurance industry in a dramatic fashion. Legislative and insurance premium relief is being sought in most American jurisdictions. Limited research on patron behaviour and management policy has left a gap in knowledge. Practical solutions through voluntary retail industry seminars on alcohol policy and abuse recognition and techniques of alcohol management have characterized this period. Examples will be given of major developments in establishment policy and procedures, curriculum in alcohol management seminars, and legislative attempts to integrate responsible business practices into statutes in various states will be reviewed. A comparison will be made between educational programs and legislative efforts in the U.S.A. and Scandinavian countries with regard to drunk driving prevention.

SUPPORT SYSTEMS FOR ALCOHOL COUNTERMEASURE EFFORTS - PRESENT AND FUTURE

L. Karsten & J. Stone, National Association of Governors' Highway Safety Representatives, Washington, D.C., U.S.A.

Much of the success of the drunk driving movement in the United States today is due to the constant and consistent messages delivered to the general public about the severity of the problem and the need for societal behaviour modification. The message "Don't drink and drive" is clearly being institutionalized in the United States.

Coupled with tougher state and Federal DWI laws, tough and serious enforcement efforts will further this institutionalization. In order for enhanced enforcement efforts to continue to be taken seriously by the general public, and within state bureaucracies, highway safety-related data bases containing important statistical and analytical information must be expanded. Information gleaned from the data sources must be shared and applied in a variety of situations leading to the alcohol countermeasure effort.

This paper will address the recent efforts in the states to further computerize traffic records systems in order to enhance drunk driving enforcement. The paper will also explore examples of other information systems applications for drunk driving efforts, in the courts, on the road, in determining recidivism rates and in rehabilitation and treatment programs for the DWI offender. It will attempt to forecast future needs

and crosscutting issues in the environment that will affect those support systems surrounding alcohol countermeasures.

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A SYSTEMS APPROACH TO THE REDUCTION OF ALCOHOL-RELATED PROBLEMS AT THE LOCAL LEVEL

H.D. Holder, The Human Ecology Institute, Chapel Hill, North Carolina, U.S.A.

Most programs concerned with prevention of alcohol abuse approach the problem in a simplistic or one-dimensional way. Clearly consumption and the subsequent misuse of alcohol occur within the context of a complicated system of social, political, legal, and economic variables. A computer model has been developed as a means to analyze the multiple variable interactions which surround alcohol consumption and, in turn, affect its abuse. The model was applied to and tested for three separate and unique locations in the United States: Alameda County, California (primarily urban and western U.S.A.); Washington County, Vermont (primarily rural, northeastern U.S.A.); and Wake County, North Carolina (a mixture of suburban and rural, southern U.S.A.).

The models for each county include alcoholic beverage consumption, risk of mortality and morbidity (including traffic accidents), regulation and education, community economics including disposable income and taxes, community awareness of drinking and abuse, community pressure for control and education, and the promotion, distribution and sale of alcoholic beverages. Each

model has tested a series of strategies which have been identified as politically and economically feasible in reducing alcohol-related problems. Types of strategies included: (1) restrictions on alcohol availability by price manipulation and increased minimum drinking age, (2) community education directed at youth and consuming adults, and (3) drinking and driving policies including changing the legal limit for arrest and conviction of DUI, increased actual and perceived risk of arrest, and increased conviction for DUI.

The proposed presentation will review the models utilized and summarize the results of computer simulation for each community. The purpose of these simulations is to project potential outcomes to specific prevention strategies within a complex network of variables, and to provide information and a tool which can be of use to community level policymakers.

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TATTOOS OF HEROIN ADDICTS: PERSONALITY AND CULTURAL ASPECTS IN THAILAND

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From the investigation of the number of patients who were admitted for treatment at the Thanyarak Hospital (hospital for drug addiction, 450 bed capacity) early in July 1983, it was found that among 335 males admitted as in-patients there were 252 tattooed patients (75.2%) and 83 non-tattooed patients (24.8%). This has

aroused the interest to study specific characteristics of tattooed and non-tattooed patients.

A study was made on drug addicted male patients of Thanyarak Hospital who had and who did not have tattoos. These patients formed 2 groups of 40 patients each, totalling 80. Clinical and diagnostic examinations and physiological tests were then made. It was found in both groups of drug addicted patients that there was a high incidence of sociopathic or psychopathic personality disorders, and in MMPI, by means of the PICS test, a clear difference was found in the PD scale at T-score level of 60 upwards ($p < 0.05$). No difference of statistical significance was found in the personality of both groups, and no difference was found in the intelligence of the groups - which was, incidentally, at an average level.

Most tattooing was done with ritual accompaniments which require yok-kru (paying respect to the guru), which is different from western practices. The expectation in the tattooing with ritual accompaniment is for the effect of invulnerability, non-danger and compassion. The tattoos are usually spread out all over the body of the tattooed person, with or without ritual accompaniments. Also found are tattoos of the word "kong", cabalistic writing, and the figures of real and mythical animals.

This paper also illustrates and discusses the embedding of mother of pearl in people with and without tattoos. In some cases, the embedding was made in the skin of the central portion of the penis - in order to make a female partner reach the climax more quickly and to obtain a longer duration of intercourse.

THERAPEUTIC INSIGHTS OF SELECTED 19TH AND 20TH CENTURY FICTION WRITERS APPLICABLE IN UNDERSTANDING AND TREATING THE ADDICTIVE PROCESS

W.R. MacLennan, Alberta Vocational Centre, Grouard,
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Writers such as Lowery, Lawrence and Kafka have given insights, both psychodynamic and humanistic, into their characters, which can help us understand the wanderings of the wounded one in the wild country. These insights instigate reform (psychic, emotional, etc.) in various ways - perhaps through afflictions of the soul (Morris West) or through comedic insight (Tom Robbins). They portray the human condition in all its splendor and/or tumult, and we obtain outstanding realistic portraits. (Lowery on fear in "Dark as the Grave"). Through vivid descriptive phrase we learn, over and over, that we get into binds when we forget the facts of our own nature.

These insights may be of use to those of us dealing in this most human of fields. Through them we can recognize and accept our own frailties and those of others. Such an acknowledgement will aid us all in becoming stronger agents of positive change, be we educators, counsellors, friends and/or family.

A THERAPEUTIC MODEL OF RECOVERY

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The process of recovery from alcoholism involves several phases through which the individual must progress. Health care professionals have failed to recognize the remarkable similarities between other disease recovery processes and the process of chemical dependency recovery. We propose a model of recovery directed towards the health care professional, particularly nurses, which recognizes the existence of a sequential long-term recovery and problem solving process.

In most chronic illnesses, behaviours and attitudes such as denial, anger and certain family interactions are viewed as normal, though dysfunctional. Similar problems, when applied to alcoholism, are reframed as being abnormal and a part of, rather than reaction to, the disease. The effect of this reframing will be discussed.

Numerous unique life problems will be identified as the patient moves through the phases of the recovery model. In order to solve these problems, various tasks must be accomplished. The role of interventions in problem identification and task accomplishment will be explored.

The paper contends that through application of this model, nurses will be in a better position to assess, intervene, and counsel the recovering individual.

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THERAPEUTIC PROBLEMS OF THE HEROIN ADDICTS IN THAILAND

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Opiate dependence, especially in the case of heroin, is a major social problem in Thailand. It is well established that many heroin addicts tend to relapse after being detoxified. So far no treatment method yet developed has solved all the complex problems involved in heroin addiction.

The therapeutic problems that led to the resumption of drug-taking behaviour among 150 heroin addicts were studied in one treatment centre. In view of the numerous factors contributing to drug abuse, a variety of methods have been integrated for the treatment of these addicts.

From this study the following factors seem important in determining the relapse to this narcotic: motivation and length of treatment, personality factor, physiological disequilibrium which might be related to protracted abstinence and opiate receptors, conditioned abstinence, family influence, peer pressure, availability of job, and aftercare.

This paper also gives an overview of recommendations to combat these problems.

THERAPEUTIC STYLES OF CONFRONTATION: A COMPARATIVE STUDY

R.G. Sovereign & W. R. Miller, Department of Psychology, University of New Mexico, Albuquerque, New Mexico, U.S.A.

The problem of "motivation for treatment" of alcohol abuse is widely recognized. Therapeutic "confrontation" is commonly prescribed as a means of overcoming client denial and resistance. Yet there have been few attempts to define or evaluate optimal procedures for confrontation.

In a comparison of two alternative confrontation styles, 42 problem drinkers completed a "Drinker Check-Up" and then received feedback from a counsellor who took either a directive or a client-centered approach. In the directive style, the counsellor emphasized client pathology, refuted client denial, offered advice, applied the label "alcoholism" to the client's problem, and warned of the dangers of not following the counsellor's advice. In the client-centered mode, the feedback information was presented in a more neutral fashion: the counsellor practiced reflective listening, attempted to elicit the client's own concerns, and avoided labeling and advice.

Clients were assigned at random to receive immediate or delayed (6-week waiting list) feedback, based on earlier findings that brief motivational interventions are likely to show any effect within a 6-week period. Clients were likewise assigned at random to receive either the directive or client-centered style of confrontation. Follow-up interviews were conducted

weeks after feedback to determine what actions clients had taken to change their drinking behaviour, and longer follow-ups are planned. Client characteristics predictive of differential response to alternative confrontation styles were examined.

This study provides the first direct comparison of two alternative approaches to client confrontation: a directive style intended to override defense mechanisms vs. a "motivational interviewing" style intended to instill intrinsic motivation for change.

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TOBACCO SMOKING AROUND THE WORLD

2. Masironi, Smoking and Health Program, World Health Organization, Geneva, Switzerland.

In recent decades tobacco smoking has spread like an epidemic from the industrialized to the developing countries. In its wake, an epidemic of smoking-related diseases, particularly cardiocirculatory and chronic respiratory diseases, and lung cancer, has taken place, entailing huge health problems and huge medical and social costs to developing countries already beset by problems of poverty, malnutrition, infectious diseases, and lack of health structures. Whereas in most industrialized countries people and governments are aware of the threat and the epidemic is being arrested and reversed, in most developing countries populations are at the mercy of aggressive tobacco promotional campaigns. While in some such countries few women smoke, in many other countries the majority of both

women and men smoke. Tobacco consumption trends around the world are given.

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TOBACCO, ALCOHOL AND PSYCHOACTIVE MEDICINE CONSUMPTION AMONG HIGH SCHOOL STUDENTS OF 10 ITALIAN TOWNS

S. Monarca (1), M.A. Modolo (1), R. Romizi (2), M. Catanelli (1), V. Stopponi (1) & L. Santi (3); (1) Istituto di Igiene, University of Perugia, Perugia, Italy; (2) Istituto di Etnologia e Antropologia Culturale, University of Perugia, Perugia, Italy; (3) Lega Italiana per la Lotta contro i Tumori, Perugia, Italy.

Data from a sample of 14 and 18 year old students from high schools of 10 Italian towns were analyzed to study the consumption of tobacco, alcohol and psychoactive medicines and to explore the relationships among these three legal drugs.

Over 8000 male and female students were interviewed using an anonymous questionnaire. The principal results were as follows:

- Of all the students, 24-47% were occasional or current smokers - the majority of which were males.
- Wine was the most consumed alcoholic beverage and was drunk daily by 16-41% of students.
- Psychoactive medicines were used by 9-12% of the students at least once a year.
- Relationships among tobacco, alcohol and psychoactive medicine use were found.

- Users of each group of substances were less aware of health hazards caused by the used drug than non users.

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TOWARDS FREEDOM FROM THE PRESSURE OF CIGARETTE ADVERTISING: LEGISLATION VERSUS SELF REGULATION

R.E. Shean, Australian Council on Smoking and Health, Perth, Western Australia.

A crucial component of a successful smoking control program is regulation of cigarette advertising. While freedom from the pressure of cigarette advertising is necessary to enhance the effectiveness of health education and information programs, where total bans do not exist, maximum regulation through existing channels is desirable.

This paper examines the major regulatory bodies which control cigarette advertising in Australia. Two main types of regulation - legislation and self-regulation - exist in the country, and this paper presents respective responsibilities and procedures for the handling of complaints against the tobacco industry. Test cases over a 12 month period from within each system are evaluated. The implications of these cases on the public, the tobacco industry, and self-regulation versus legislation are explored.

Finally, this paper delineates the role of an independent pressure group such as ACOSH in the regulation of cigarette advertising.

TRAINING ADDICTION WORKERS

G. Anderson, Staff Training and Development, Alberta Alcohol and Drug Abuse Commission, Edmonton, Alberta, Canada.

Training in the addictions field in the areas of treatment, prevention, supervision, management and administrative services is becoming more systematic. From offering just basic information on an ad hoc basis, extensive skill training programs based on the needs of the workers are being established.

Over the past eleven years, a training program has been developed within AADAC to meet the training and development needs of approximately four hundred staff. This paper describes the model that was used, including evaluation results of the training offered.

Topics covered will include:

- How to identify training needs.
- What are the competencies required of staff in addiction counselling and prevention?
- How should the training program be planned and implemented?
- How can the effectiveness of the training programs be measured?
- How can you help staff career development through competency-based training?

TRAINING NURSE PRACTITIONERS IN THE FIELD OF SUBSTANCE ABUSE

M. Gaerlan, Addiction Research Foundation, Toronto, Ontario, Canada.

Substance abuse nursing is a clinical specialty where in-depth training is not available in community colleges or universities in Ontario. In view of the depth and breadth of the addictions problem in health care, nurses need a comprehensive program in order to deliver specialized and competent care.

The Addiction Research Foundation has devised a 10-month in-depth Nurse Practitioner program, in hospital, using qualified staff in the medical and nursing departments as faculty.

This paper describes the training components of the program and follows the behavioural progress of the trainees before the didactic input, post didactic/pre practicum, mid-practicum, and post practicum. It also describes the role of the Nurse-Practitioner in the field of substance abuse in nursing practice, education and research.

TRAINING OF PROFESSIONALS IN THE ADDICTIONS FIELD

D. Cipywnyk, Saskatchewan Alcoholism Commission,
Saskatoon, Saskatchewan, Canada.

The physician, nurse and other support personnel form part of a team which is involved in early identification, assessment, treatment, and provision of supportive aftercare for the alcohol and other substance abuser and his family. Medical and nursing schools generally, although recognizing the fact that alcoholism was a serious public health problem, have been slow to equip their students with skills for coping with it. The importance of developing better and more comprehensive courses of instruction about chemical dependence for medical and nursing students needs to be recognized.

Since manpower and curriculum time are often considered impediments to the introduction of sufficient material into the curriculum, liaison with an agency mandated to provide primary, secondary and tertiary services to those affected by chemical dependence can overcome these difficulties, and attain the training objectives required for competence in this area.

The paper outlines the evolution of such a liaison and briefly describes the teaching program. Utilizing the resources, site, and patients of another agency has distinct advantages for the medical and nursing schools. It provides a broader patient base, it affords an opportunity for medical and nursing students to become skilled in the identification and management of problems associated with chemical dependence.

A TRANSCULTURAL ANALYSIS: A COMPARISON OF GERMAN, SPANISH, ECUADORIAN AND MEXICAN ALCOHOLICS USING THE MUNICH-ALCOHOLISM-TEST (MALT)

J.E.B. Hernandez & K.-D. Gorenc, Government of the State of Tabasco, Tabasco, Mexico.

Since the Munich-Alcoholism-Test has been validated in Germany, Spain, Ecuador and Mexico, an attempt was made to search for similarities among these different alcoholic populations. The present inquiry encompassed the three general areas explored in the test: drinking patterns and approaches, psychological and social damages, and somatic disturbances.

From the 31 items of the test, five turned out to be quite consistent in exposing similarities. It was found that the four groups of alcoholics meant to restrict their drinking, but nevertheless felt an ambivalent attitude toward alcohol. These findings seem to be related to the progressive constraints on drinking behaviour that result from increments in social organization. It was also found that, from a motivational point of view, the four samples used alcohol as an anxiety relieving substance.

Finally, the present findings suggested that two new elements, that are quite consistent and have not hitherto been taken into account, be added to the Alcohol Dependency Syndrome. One is that the different alcoholic samples continue drinking despite medical contraindications. Another one is the asserted belief that they would feel satisfied refraining from drinking alcohol.

TRANSFER OF TRAINING EFFECT IN AN ALCOHOL AND DRUG EDUCATION PROGRAM

C. Gazmuri, C. Langdon, J.E. Cortes & R. Florenzano, Facultad de Medicina, Universidad de Chile, Santiago, Chile.

One of the common criticisms to primary prevention programs in the field of chemical dependencies is a lack of systematic appraisal of both outcome and process of those programs.

Since 1981, the authors have been using a specific system in Santiago, Chile with a workshop format designed to reach students, teachers and parents within the school systems. In this paper, the transfer of the training effect was measured using several schedules: one on communication skills applied to teachers and parents participating in the workshops, and three others on self-esteem, assertiveness, and alcohol/drug information.

The workshop faculty formed by education and mental health professionals trained 96 students, 32 parents and 31 teachers selected from ten public secondary ("high") schools belonging to three county school systems in Metropolitan Santiago. The training effect was measured through pre and post-course application of the schedules. The change was statistically significant in the expected direction in all the groups with major changes among women and teachers. The trained population then applied the same workshop format to their peers in the school regular setting. The population reached in this second stage of the program was 403 students, 46 parents and 50 teachers

(in only one area of the three school systems). There was again a statistically significant improvement in the post-course measurements. The training effect was greater among women and good attenders to the workshop. Parents turned out to be the poorest attenders.

The need to measure outcome indicators (alcohol and drug consumption changes) among the target population is underscored, as well as the positive finding of this study, namely that it is feasible to reach larger groups of students and teachers through peer group training.

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TREATMENT FOR CHRONIC ALCOHOLIC AND HABITUAL OFFENDERS

W.J. Bohs & W.G. Hughes, Southwest Florida Alcoholism Services, Inc., Fort Myers, Florida, U.S.A.

Chronic alcoholic habitual offenders (multiple alcohol related arrests) have and are volunteering for a strict probation as opposed to doing time in prison. They agreed to a program of not less than twelve months which includes: (1) weekly group therapy, (2) weekly urine screening, (3) antabuse monitoring three times a week, and (4) monthly contact with probation officer (the probationer volunteers for maximum sentence before the judge if he violates his probation). Reality Therapy and Rational Behaviour Training are basic models for group therapy.

The goal of this project is to put the habitual offenders in a long, strict treatment program that uses the court system to back it up.

The basic aim is that long-term treatment control gives the habitual offender time to change thinking processes, habitual and familial behaviour. This program may be a better alternative to short-term treatment programs and/or prison.

A follow-up study will be done using Florida Statute 119 which provides legal information under the Public Records laws. A pre and post-test comparison will be made comparing arrest records before treatment to arrest records five years after treatment. A two year spot comparison is being made now. Recidivism is expected to decrease.

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TREATMENT ISSUES/ADOLESCENT HABILITATION

M.E. Harris, Johnson Institute, Minneapolis, Minnesota, U.S.A.

The emphasis of this presentation will be to outline a paradigm for adolescent treatment providers that addresses the issue of helping young people more effectively bridge the gap between childhood and adulthood. Many treatment care-givers have designed programs based on adult models. These models have traditionally been AA-based and require a level of abstraction that is often difficult for adolescents. Adolescents may become overly abusive or compliant. These programs may have unwittingly ignored the basic adolescent tasks, i.e., the struggle for physical and sexual maturity, emancipation from family and achievement of economic independence. These tasks along with other vital developmental processes are

often stunted when adolescents become harmfully involved with mood-altering chemicals. A model of a treatment program that provides a therapeutic milieu in which there is permission to grow and change and where healthy life-styles are encouraged will be presented.

General treatment goals that focus on abstinence, resumption of maturation and the teaching of independent living skills will be explained. The recommended components of psychiatric and psychological services, a viable academic program addressing special learning disabilities, occupational therapy, family therapy, and health issues will be followed by a discussion of internal treatment issues that adolescent treatment administrators have reported to be most troublesome. This presentation is meant to be an overview and is intended to be the basis for more in-depth thought, conversation, and investigation by participants.

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TREATMENT OUTCOME FOR FEMALE ALCOHOLICS: FINDINGS FROM A LONG-TERM FOLLOW-UP STUDY OF 44 WOMEN

B. Haver, Department of Psychiatry, University of Bergen, Bergen, Norway.

The purpose of the present study was to collect information about the long-term course of alcohol dependence in women treated before age 40. The group was selected from a detoxification and an out-patient department in the city of Bergen. All the 55 women included, fulfilled the Hagnell and Tunving's criteria for alcohol dependence at the beginning of treatment.

These criteria closely resemble Jellinek's definition for gamma alcoholism.

At follow-up - an average of 6.5 years after first treatment contact - two women (4%) were dead and nine (16%) refused to participate in the study. Thus, 40 (80%) of the women were interviewed by the author using a semi-structured interview. Through the interview, data about alcohol abuse and family violence in the family of origin, and former and present partner relationship, were obtained. It included quantity/frequency figures concerning the subjects' alcohol consumption in the preceding year. The informants completed a Symptom Check List (SCL-90). Interview data were checked against the medical records of the alcohol treatment institutions of the region and police register data.

At follow-up, 2/3 of the women, including eight long-term abstainers, reported an alcohol consumption below the limits postulated to discriminate between social drinkers and heavy drinkers in Norwegian women, both annually and on a mean daily base. However, many of the women had psychiatric disorders. A bad outcome was predicted by family violence in the family of origin. A good outcome was predicted by the capacity to separate from a destructive partner relationship.

TRENDS IN ALCOHOL POLICY

R. Draper, Health Promotion Directorate, National Health and Welfare, Ottawa, Ontario, Canada.

Canadian society has become more open and pluralistic over the last four decades. These trends come from growing wealth, a multicultural population and an increasingly cosmopolitan outlook.

Changes in alcohol control policy reflect these trends. The beverage selection available has grown immensely and alcohol has become easily accessible at lower relative prices. While alcohol remains a controlled substance, the controls now in place do more to stabilize the means of production than to inhibit either marketing or consumption.

After rising steadily for several years, per capita consumption of alcohol has leveled off. The result is the volatile and highly competitive market, especially for beer. This has led to new aggressive marketing practices which so far have provoked few state controls.

Debates about liberalization of control policy have highlighted popular demand, economic benefits and the advantages for government revenue. Public health concerns, to get attention, have had to concentrate on specific issues such as impaired driving.

Wide Canadian acceptance of alcohol as a social amenity and the economic interest at stake, probably mean that significant reversals in current policy are unlikely. If this is true, Canada's response to the health

consequences of alcohol use will have to rest upon more treatment and greater effort to establish norms against problem drinking.

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TRENDS IN TOBACCO CONSUMPTION IN SIX COUNTRIES

B. Rogers, G. Myers & N.E. Collishaw, Bureau of Tobacco Control and Biometrics, Health and Welfare Canada, Ottawa, Ontario, Canada.

Tobacco consumption trends were examined for the period 1950 to 1983 in Canada, United States, United Kingdom, Norway, Sweden and Finland.

Annual consumption of tobacco products in the three Nordic countries was around 2 kg per person 15 and over throughout the whole period. Consumption in the United Kingdom declined from about 3 kg per adult in the 1950's to about 2 kg in the 1980's. Consumption in the United States and Canada declined from 5-6 kg per adult in the 1950's and 1960's to 3.0-3.5 kg per adult in the 1980's.

"THE TROUBLE WITH HARVEY": (THERAPEUTIC METAPHOR AS A TECHNIQUE IN FACILITATING THE EVOLUTION OF TRANSFERENCE IN GROUP BEHAVIOUR - A PRACTICAL APPLICATION)

P. Burke, Alberta Alcohol and Drug Abuse Commission,
Edmonton, Alberta, Canada.

Certain types of chemical dependencies are seen as conditioned behavioural manifestations of object hungers which originate at primal levels of psychosexual development. The synthesis of intrapsychic structural theory with concepts inherent in the systemic and object relativity approach to understanding group dynamics, provides a useful, and cost-effective framework through which dependent clients can transcend infantile "fixations".

This paper examines the convergence on inter/intrapersonal relativity theories, in the context of, and regarding the application to, a group therapy program for substance abusers and their collaterals, currently being offered by AADAC. Such parameters preface a discussion of characteristics common to group members. Similarly, the opening text provides a framework for assessment and referral criteria indicating a client population appropriate for this form of "Metanalysis".

A description of the three major stages in the process of ontogenetic and phylogenetic evolution of transference in group dynamics yields to a focus on the utility of metaphor as a therapeutic technique in the process analysis. Five principle uses of metaphor relevant to this treatment approach are delineated. Notes concerning the design and strategic application

of metaphor highlight the potency and potential impact of this form of dependency intervention.

Finally, case examples of the emergent growth of clients through the evolutionary process of transference are presented. Correlative metaphors actually used in the treatment of "Harvey" - a "dependent system" are also provided.

The author concludes that the merger of intrapsychic and object relations theories provides a useful foundation for delivery of metaphor in group therapy. Further, the practice of this approach is seen as a viable method of avoiding the problem of shifting addictions and recidivism.

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A TYPOLOGICAL ANALYSIS OF CALIFORNIA DUI OFFENDERS AND DUI RECIDIVISM CORRELATES

G.W. Arstein-Kerslake & R.C. Peck, California Department of Motor Vehicles, Sacramento County, California, U.S.A.

From September 1977 to January 1981, the CDUI Alcohol Offender Treatment Demonstration Project was in operation in Sacramento County, California. Although the CDUI project analysis represented a thorough investigation of the effectiveness of various treatment modalities, it did not expressly attempt to isolate correlates of DUI recidivism or DUI countermeasure program compliance. The present analysis augments the original CDUI analysis by specifically assessing the extent to which individual differences are predictive of DUI recidivism and treatment program compliance, and

by identifying clusters of persons with similar psychometric and nonpsychometric characteristics. In the event that subsequent recidivism and program compliance could be predicted from measurable offender characteristics, DUI sanctions could be differentially assigned based on recidivism/compliance likelihood and thereby maximize the rehabilitative and punitive components of the DUI adjudication process.

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UNDERGRADUATE ALCOHOL MISUSE: PEER COUNSELLING AS A STRATEGY FOR PREVENTION AND EARLY DETECTION

A.L. Cherry, Social Work Department, Salisbury State College, Salisbury, Maryland, U.S.A.

This presentation will report on the responses of undergraduates when asked to what resources or to whom they would turn for help if they thought they had a drinking problem. The survey was conducted at a small rural college in the mid-atlantic coastal region in the U.S.A. Of the 150 students randomly selected by sex, race, and class, 121 students (80%) returned the completed questionnaire. In this survey, 71.5% of the students indicated they would turn to a friend for help. The students' choices and the implications of those for peer counselling, prevention and early detection are examined by the sex, living situation, level of drinking, level of personal competence and the number of resources the student would turn to for help with a drinking problem. The findings suggest that focusing resources on training students in peer counselling techniques can benefit both prevention and early detection. Teaching students to recognize the

symptoms in others may also teach self-monitoring. Teaching confrontation techniques to students may teach students how to respond to confrontation if they develop a drinking problem.

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UNRECORDED CONSUMPTION OF ALCOHOL IN FINLAND, 1976-1984

E. Österberg, Social Research Institute for Alcohol Studies, Helsinki, Finland.

This paper describes changes in the unrecorded consumption of alcohol from 1976 to 1984. Unrecorded consumption consists of three separate components: drinking of alcohol produced for other than drinking purposes, homemade alcohol and unrecorded importation of alcohol, to include smuggling. The results are mainly based on interview data from both 1976 and 1984. Furthermore, official sources other than alcohol statistics have been used when available.

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UNVEILING POWERFUL PSYCHOSOCIAL PREDICTORS OF ALCOHOL-INDUCED CAR ACCIDENTS

L. Laforest, Département des Sciences de la santé communautaire, Faculté de Médecine, Université de Sherbrooke, Sherbrooke, Québec, Canada.

A study conducted on a young adult driver population (Québec) in 1984, using a representative sample whose

accident records were compiled over a period of six years (1977-1983), generated an impressive number of highly valid variables. Jessor's conceptual framework was retained for its great capacity to predict (and explain) problem behaviour among youth.

The psychosocial studies have not been too successful in the past in predicting alcohol-induced car accidents. But Jessor's team never applied their framework to this neglected topic. So we attempted to fill the gap and did our best to give full credit to Dr. Jessor's well tested framework. Using a 30 page confidential questionnaire largely structured around Jessor's numerous scales, we contacted 938 individuals systematically selected out of a list of 10,534 individuals representing the total population of drivers who had obtained their car license at 16 (between September 1, 1977 and August 30, 1978). A total of 515 questionnaires were returned, that is 53% of the total sample.

Through a careful cross-checking of self-reported versus police reported accidents, we tested and transformed our variables (part of them) in order to comply with the linearity postulate and integrated them into a path analysis model. This model was structured taking into account Jessor's framework.

The preliminary results show that a surprising amount of the total variance of the dependant variable (accident rate) is explained by psychosocial factors. Still better: the alcohol-induced life-style is playing a main role in the total explanation.

USE OF A BEHAVIOURAL TREATMENT OUT-PATIENT MODEL IN THE TREATMENT OF COCAINE ADDICTION

K. O'Connell, San Jose, California, U.S.A.

Cocaine addiction is a rapidly growing phenomenon in Northern California. Abuse is particularly widespread in the high-tech industries of the Santa Clara Valley region. Because a new cocaine crop has recently matured and will be flooding the marketplace, cocaine addiction will be escalating in terms of both numbers of people affected and seriousness.

The author has developed several behavioural techniques which are producing a 70% recovery rate measured at one year in program evaluation studies. Several of these techniques involve behavioural desensitization and a technique called PRE or Psychophysiological Re-education through which the patient is educated as to what are the cues or triggers for cocaine urges and then taught through a desensitization technique not to respond to things which used to trigger off urges. This technique has proven most successful in the treatment of cocaine snorters on an out-patient basis.

This paper gives a specific description of the techniques mentioned above and their application. These techniques have proven to be helpful in treating cocaine addicts and they are easily taught to treatment staff.

In her presentation, the author will describe the techniques mentioned above and outline a program for teaching these techniques to clinical staff.

THE USE OF ALCOHOL BY MEMBERS OF THE CANADIAN FORCES

J. Bardsley, S. Brochu & J. Roy, Directorate of Preventive Medicine, Department of National Defense, Ottawa, Ontario, Canada.

An epidemiological survey of alcohol and drug use was done on a random sample of 6,182 Canadian Forces personnel using a self-administered questionnaire. The survey looked at alcohol use in terms of frequency, volume consumed on a typical working and non-working day, average daily consumption and episodes of heavy drinking (8 or more drinks/time). Correlations were made between alcohol consumption and the social and military characteristics of the sampled personnel. In addition, physical dependence and the adverse affects of alcohol use in the work and social settings were examined. Comparisons were made with studies on Canadian civilians and U.S. military personnel.

Alcohol use poses a significant problem for the Canadian Forces, to the same extent that it does for other military and civilian work forces. The problems are especially high in young, single males in the Sea Operations Branch stationed on the west coast and subjected to operational deployment. Another high risk group is the middle-aged male under administrative pressure. Specific results under each of the categories will be discussed. The steps the Canadian Forces are taking to deal with the problem will be outlined briefly.

USE OF ALCOHOL DIPSTICK IN A TREATMENT SETTING

B. M. Kapur (1) & J. E. Peachey (2), (1) Addiction Research Foundation, Toronto, Ontario, Canada. (2) University of Toronto, Toronto, Ontario, Canada.

Since most patients do not accurately report their drinking behaviour while in alcoholism treatment, collection of appropriate urine samples and testing for the presence of alcohol can provide an objective measure of abstinence. We have recently reported a simple, rapid and inexpensive alcohol dipstick method (Kapur et al, 1983) of detecting ethanol in urine, saliva and blood. We report here a study on patients enrolled in an abstinence-oriented Temposil treatment program. The dipsticks used in this study are based on the alcohol dehydrogenase reaction and provide a semiquantitative measure over the concentration range of 3-150 mg%. Dipsticks based on the alcohol oxidase reaction were not used since these are nonspecific and are inhibited by urea (Kapur et al, 1984).

Thirty-four alcoholic patients were asked to submit daily evening urine samples and self-report their use of alcohol daily. Compliance with the above two requirements was 93.1% and 95.2% respectively, of the total 4696 possible responses. All urine samples were tested by the alcohol dipstick method in the treatment setting by a member of the treatment team not trained in laboratory technology. All dipstick-positive samples and every 20th dipstick-negative sample were further analyzed by a spectrophotometric method. Results indicated; (1) a very high degree of correlation between dipstick and spectrophotometric analysis was found ($r=0.96$) and (2) twenty-one (61.8%)

of the patients reported no drinking on at least one occasion when their urine samples were alcohol-positive. Of these, 5 patients (23.8%) denied drinking on 5 or more occasions when the urine was positive.

Patients who drank were carefully assessed. For most, advice not to drink was sufficient to stop further drinking. Those who persisted in drinking were reassigned to other treatments. Our results indicated that the alcohol dipstick method is simple, rapid and inexpensive to perform and provides valuable information for use in alcoholics during treatment. Since this method requires no instrumentation, and can be performed by non-laboratory professionals, it is particularly useful in clinical and field settings.

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USE OF CHLORDIAZEPOXIDE (LIBRIUM) IN AN ALCOHOL DEPENDENCY PROGRAM

K. Joenks & K.C. Buckwalter, Veterans Administration Medical Center, Knoxville, Iowa, U.S.A.

A major problem associated with alcohol treatment programs is the inability to keep patients in treatment long enough to realize benefit from the program. The literature suggests that chlordiazepoxide (Librium) is effective in promoting patient completion of treatment programs. This study correlated the use of Librium in one Alcohol Dependency Treatment Program (ADTP) with length of stay. Other factors such as frequency of treatment with Librium, sociodemographic variables (age, patient education level), and environmental variables (time of year) were also examined in

relationship to use of Librium and length of stay in the ADTP. Records of 119 male subjects in a V.A. medical center were reviewed over a one year period. Findings suggest that use of Librium did not influence patient's length of stay. Correlations between sociodemographic and environmental variables and length of stay were also insignificant. However, chi square analysis demonstrated significant seasonal variation in the prescription and use of Librium, with considerably more Librium being ordered but not used in the winter and spring months. Limitations of the study and recommendations for future research are discussed.

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THE USE OF HIGH TECHNOLOGY IN INNOVATIVE EDUCATIONAL PROGRAMS FOR PRE-SCHOOL AND PRIMARY SCHOOL CHILDREN

T. D. Noffs, The Wayside Chapel, Potts Point, New South Wales, Australia.

The Life Education Center of The Wayside Chapel in Sydney has now been operating for five years, during which time 250,000 children from Public, Catholic and Private schools have become committed to this program. Mobile Life Education Centers using the same software programs are now operating in rural and suburban areas and the concept of Life Education Centers is now spreading rapidly throughout Australia and South-East Asia.

The Life Education Center program has avoided both the materialistic and legalistic approaches and seeks to communicate the beauty and wonder of human life through sophisticated electronic modules which present

technically accurate representations of the human body and its functions.

Coupled with this is a "story line" which is built in making each grade presentation an entirely different educational event in a child's progress through primary school.

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THE USE OF "LOVE" IN THERAPY

R. Crowder, "The Bridge" Drug Rehabilitation Program, Gadsden, Alabama, U.S.A.

The basic reasons for counselling addictive people is to help them learn "how to live". This can best be accomplished by helping them to redirect their thinking, change their values, consider a new life-style, and learn to love themselves. In order to do this an addicted person must trust his therapist, be challenged to change, be inspired by hope, and realize that there is more to life than is offered by drugs. These conditions can best be realized if the therapist demonstrates real "love" while delivering counselling through various techniques.

What is love? The concept of love has been distorted in our modern society as it has taken on the exclusive idea of being passion or sex. Love is a human characteristic which in some form has been fostered by most of the major religions of the world. It may take the form of dedication, sacrifice, fear (awe), deep emotional feelings, devotion, peacefulness, discipline, spiritual liberation, etc. The ancient Greeks

described five various types of feelings which a person might have toward his fellow man, and one of these was "Agape" or "unselfish love".

"The Bridge" is a comprehensive community developed treatment program for drug abusers in Alabama, U.S.A., in which the concept of "unselfish love" has been used in delivering therapy to drug abusers for over ten years, and has found these techniques to be successful. These ideas and concepts are explored in this paper.

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THE USE OF MOOD-ALTERING DRUGS IN OLDER WOMEN

J. Hansen and O. Wood, Alternatives, North Vancouver, British Columbia, Canada.

The purpose of this paper is to demonstrate the physiological dependence, reaction, and psychological impact drugs such as the benzodiazepines create in older women.

This has been undertaken by presenting the medical background and personal story of a 70 year old, well-functioning woman who was prescribed mood-altering drugs for 17 years, originally because of a heart attack.

The side-effects and withdrawal symptoms this woman experienced were characterized by somatic effects such as severe leg and abdominal pain, headaches comparable to migraines in severity, confusion and nightmares, and by psychological effects such as feelings of extreme fear and craziness.

THE USE OF NON-GOVERNMENT ORGANIZATIONS IN COMMUNITY MOBILIZATION

E. Scott, Alcoholism Commission of Saskatchewan, Regina, Saskatchewan, Canada.

The area of addictions has long been considered one of the few areas in the health sector which enjoys the strength of client participation achieved through a solid foundation of community involvement and organization. Self-help groups such as AA, Al-Anon and Alateen have provided significant contributions to this strength, as have interested members of the general public and professional groups.

Community mobilization is an essential ingredient in the development of the continuum of services required in the area of addictions. The Saskatchewan Alcoholism Commission has developed a network of non-government organizations responsible for community mobilization and treatment in the areas they service. These 22 non-government organizations in Saskatchewan deliver services ranging from community education, prevention programs, out-patient counselling, detoxification and in-patient rehabilitation.

The co-ordination of these services delivered by the non-government organizations with the services delivered directly by the Commission and other government agencies, e.g., Social Services, R.C.M.P., Health, strengthens the network and provides ease of access for the consumer.

Data will be supplied to illustrate the contribution this network has provided in the delivery of treatment

services in Saskatchewan. The discussion will also include the delivery of prevention programs and the advantages of community awareness being increased through non-government organizations.

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THE UTILIZATION OF CLERGY TO PROVIDE AFTERCARE COUNSELLING TO ALCOHOL/DRUG DEPENDENT PERSONS AND THEIR FAMILIES

K. Ferruccio, Addiction Research Foundation, St. Catharines, Ontario, Canada.

A project to establish a system of aftercare utilizing clergymen of all denominations was undertaken in the Niagara Region. This system would improve the treatment provided for alcoholics, drug addicts and their families as well as reduce the recidivism rate which results in costly formal treatment. It would do this by linking the clergy with the Niagara Alcohol/Drug Assessment Service. Specially trained clergy-persons would then have assigned to them alcohol/drug dependent persons who had completed an active phase of treatment but needed ongoing long-term life-style counselling within their respective communities.

Interested clergy were identified in a survey and participated in a training program. Clergy were selected because of their interest, skills and a natural mandate to alleviate human distress. The success of the program was evaluated for a period of one year.

VOLUNTARY AND INVOLUNTARY DRINKING: AN ANIMAL MODEL FOR ALCOHOL ABUSE

J.D. Keehn, Atkinson College, York University, Toronto, Ontario, Canada.

Alcoholism is an involuntary form of drinking that differs from the voluntary alcohol consumption of normal social drinking in being compulsive, sustained and excessive. A similar form of abnormal involuntary drinking appears in laboratory rats when, with fluid continuously available, their access to food is continuously interrupted. In two experiments we subjected 10 underweight Wistar rats to food reinforcement schedules in which 60-second extinction intervals and up to 200-pellet blocks of continuous reinforcement alternated. We found two different kinds of drinking depending on block size. With 30 pellets per block and over, normal food-associated drinking occurred, but with 15 pellets per block and less, drinking was compulsive, sustained and excessive, like alcoholic drinking. When a similar procedure was employed over a long period with ethanol, audiogenic seizures and death occurred when ethanol was withdrawn.

VOLUNTARY INTAKE OF ETHANOL (VIE) AND INNATE SENSITIVITY TO ETHANOL IN DRINKING RATS

M. Daoust, F. Boismare, J.P. L'Huintre, P. Chrétien, N. Moore & C. Saligaut, Faculté de Médecine de Rouen, France.

Many authors have shown that alcohol preferring rats are innately less sensitive to the effects of ethanol than the non-preferring rats. It is also well established that alcohol preferring rats prefer to drink a 10% ethanol solution in a free choice situation with food and water available ad. lib. while alcohol non-preferring rats exhibit alcohol aversion under the same testing condition.

In the present work, we tried to demonstrate if our animal model's VIE was correlated with an innate sensitivity to ethanol and if non-drinking rats' aversion was correlated with their learning performances.

Sensitivity to ethanol: Sleeping time and hypothermia were measured in rats which received ethanol (2.5 g/kg ip).

Conditioned avoidance response (CAR): The sound avoidance conditioned reflex was induced with electronically controlled conditioning material.

(+ denotes correlation, - denotes non-correlation)

	sleeping time	hypothermia	CAR
drinking rats (DR)	-	-	-
non drinking rats (NDR)	-	-	-
sleeping time		+	

Sleeping time and hypothermia are good criteria for testing innate sensitivity to ethanol, and our results show that our drinking rats are not innately less affected by ethanol. Non-drinking rats exhibit alcohol aversion, and are not more sensitive to nociceptive sensations since there is no difference between DR and NDR in CAR.

Our DR and NDR are well preferrent and non-preferrent rats, but not tolerant and non-tolerant. This preference is innate and different from innate alcohol sensitivity.

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WHERE ARE YOU WHEN YOUR CLIENTS CALL?

E. Warkentin, D. Hockley & J. Bushnell, British Columbia Telephone Company, Burnaby, British Columbia, Canada.

Employee Assistance Programs have been around in one form or another for over forty years. In recent years the popularity of broadbrush programs has grown in leaps and bounds. In addition, the desire by many to professionalize EAP's has crept into vogue and professional support groups have sprung into being.

Where is that new thrust taking EAP's?

What of joint (union/management) programs that work without formalized agreements? And are the agreements really necessary before joint programs can work?

Is a 9am to 5pm EAP serving the interests of the client/employee?

Should volunteer EAP representatives be used in an active program?

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WHY DO YOUNG ATHLETES ABUSE ALCOHOL AND DRUGS?

P. Good, The Achilles Project, San Francisco, California, U.S.A.

The cocaine epidemic among professional athletes is forcing us to realize that substance abuse is also a serious problem in high school sports. Of America's 59 million youth, no one wants to believe that the 5.6 million young athletes are, like their peers, abusing chemicals too. The limited epidemiological data are reviewed and suggest that high school athletes are just as likely to drink and use drugs as nonathletes.

A model for understanding athlete substance abuse is presented based on case histories from clinical and prevention efforts by the Achilles Project, a program developed by the author to reduce the use and abuse of chemicals by young athletes. Sources of stress for the young athlete are identified such as pro athletes whose drug involvement provides negative role modelling; teammates who apply peer pressure to use drugs; coaches who demand sacrifice and discipline; and significant others whose esteem may depend on the athlete's successful performance. In addition to these public pressures, athletic "careers" may complicate the inner anxieties of normal adolescent development. These

include defining an identity, developing a mature sexuality, dealing with failure and success, coping with injury, and maintaining a commitment to scholarship.

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WILL HEALTH AWARENESS NOW SHARPLY REDUCE ALCOHOL CONSUMPTION AND ABUSE

A. Luks, Alcoholism Council of Greater New York, New York City, New York, U.S.A.

Sixty-eight percent of Americans now want a national campaign to achieve moderate alcohol use, more than the number wanting efforts to stop smoking or obtain better diet and exercise habits, according to a national survey involving this author.

This greater concern arises because far less information exists for alcohol's health impacts than for other health-related areas.

Research by this author's organization identified 40 common health concerns linked directly to alcohol use - weight, high blood pressure, vitamin loss, fatigue, skin tone, sugar level, etc. - that can affect any person who drinks alcohol. These problems affecting appearance, and health and the ability to live longer are being distributed in a special campaign in New York, through speakers, the media and literature.

There has been a dramatic reduction in the consumption of fatty meats, high-calorie foods and sugar and chemical packed products in North America, Europe and

Scandinavia. This drop is linked to the growing health consciousness of the public and the availability of sound and consistent information on the health impacts of these foods. Given such information for alcohol use, will average drinkers also reduce their consumption - or are alcohol consumption levels too linked to socializing and relaxation to maintain a dependent relation with an increase in health information?

This paper explores this question through the New York health awareness and alcohol use campaign.

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WOMEN'S TREATMENT ISSUES

A. Thompson, Riverside Villa Association, Calgary, Alberta, Canada.

Historically, addictions research has focused on men and, therefore, treatment methods reflect this orientation. The number of chemically dependent women who seek entry into treatment programs continues to rise. Women bring to treatment issues unique to them as women. If treatment programs are to be effective these issues must be identified and addressed.

Current research indicates that social factors, physiological features and psychological dimensions are different for women. Further, these components operate with different intensity during the pre-treatment and treatment phases.

This paper will discuss the specific issues in each of the three categories (social, physical, psychological) and indicate their sphere of greatest influence (pre-treatment vs treatment). As such, the paper is designed to sensitize practitioners to specific women's treatment issues in order that consideration of them may be reflected in treatment design.

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A WORKING SECONDARY SCHOOL DRUG PREVENTION PROGRAM

R.C. Kirschling, Minnechaug Regional High School, Wilbraham, Massachusetts, U.S.A.

Attempts by high schools to develop drug education and prevention curricula are not new. Various methodologies and materials exist from instruction to counselling to peer group interventions.

Minnechaug High School's Drug Education Program, chosen by the National Federation of Parents as a model prevention program and included in its 1984 conference, departs from the usual curriculum approach. By focusing on generic drug use and abuse as a life-long issue, instead of narrowly discussing illegal adolescent use, skills are developed and knowledge imparted that students can find useful throughout their lives.

The paper focuses on the development of both the curriculum and the method of delivery, both of which differ from standard educational practice.

YOUNG DRINKERS: EMPLOYMENT, MARITAL STATUS AND CONSUMPTION

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Most drinking behaviour studies among young people do not focus on consumption at substantially elevated levels. The present paper attempts to focus on habitual heavy consumption among young male and female drinkers in Canada.

Data are gathered from the Canada Fitness Survey and will report on the similarities and differences between a sample of 3,432 young male and 3,383 female drinkers in Canada between the ages of 15 and 29.

The relationship of heavy consumption to age, employment and marital status is discussed. Results of the Canada Fitness Survey reveal that 1 in 7 young males and young females between the ages of 15 and 29 are heavy drinkers, reporting usual consumption of six or more drinks at a time for males, and four or more drinks at a time for females. While rates of heavy drinking tend to decrease with age, employment and unemployment status are important social factors associated with higher rates of heavy drinking.

The paper also provides an overview of the Dialogue on Drinking program, and evidence concerning reduction in alcohol consumption among young people in Phase II of the program.

YOUTH OF BILBAO: DRUGS, LEISURE TIME, SCHOOL PERFORMANCE, SELF-CONCEPT AND FAMILY MILIEU

R. Ajangiz, Drug Prevention and Research Committee, Modulo Psicosocial San Ignacio-Deusto, Bilbao, Spain.

A survey about the youth of Bilbao between 13 and 20 years of age was conducted during 1984. A sample of 1214 randomly chosen young people was administered an extensive questionnaire. A multistage clustering sampling procedure was used.

The matrix variable was the drug use (types, use frequency and the use starting age). We defined "drug" following the WHO criteria; therefore, smoking and alcohol use were included. Leisure time, family milieu, school performance and self-concept were also studied.

Main results were as follows:

- (1) Drug use is larger among non-studying older male youths. A total of 6.1% of the studied population are current cannabis users and 0.8% are current heroine users.
- (2) Alcohol use is large among youths and alcoholism signs among older unemployed non-studying males can be found. Wine drinking behaviour has shifted to beer and spirits.
- (3) Cigarette smoking is high, rising to 70% among older youths.
- (4) Drug and alcohol users have a larger amount of leisure time and employ it mostly in non-creative and consuming-like activities.

- (5) Self-concept is lower among current drug and alcohol users, poor students and poor family relationship holders.
- (6) Almost one out of every three youths have had to repeat at least one full year of school, and school failure affects up to 40% of the total population.

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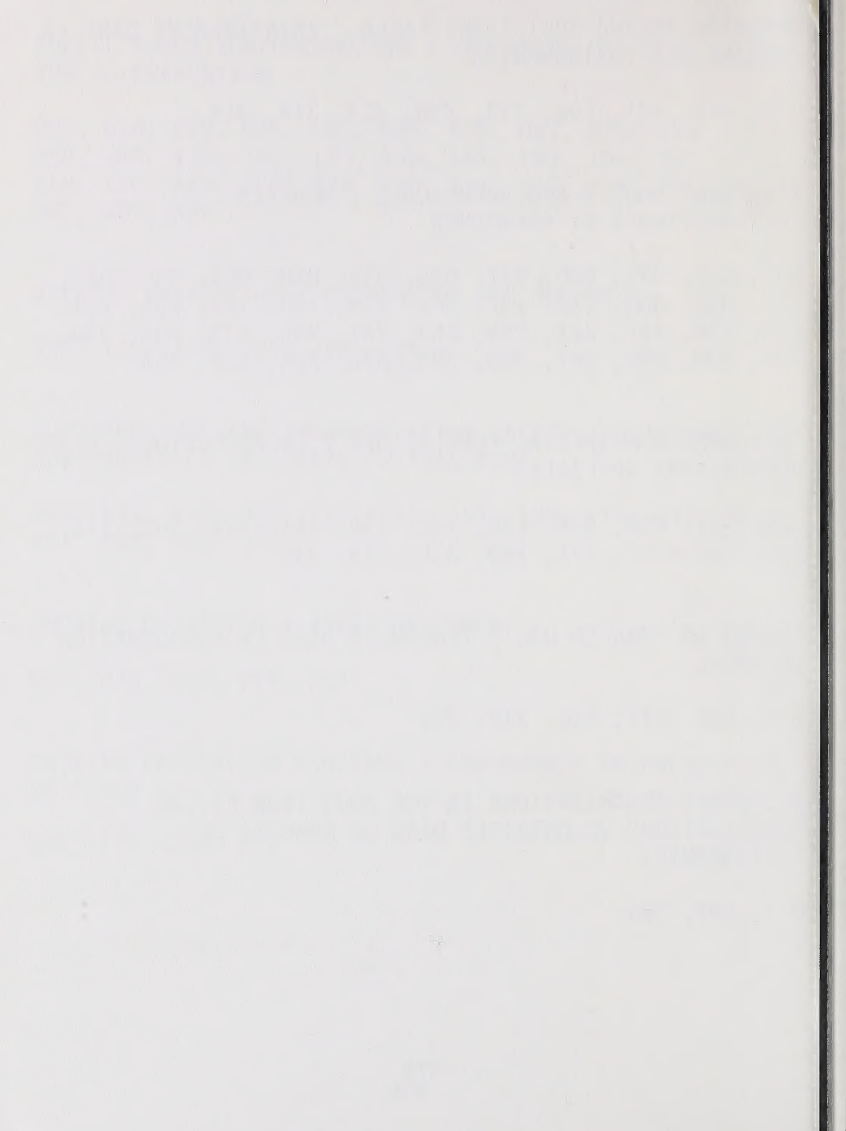
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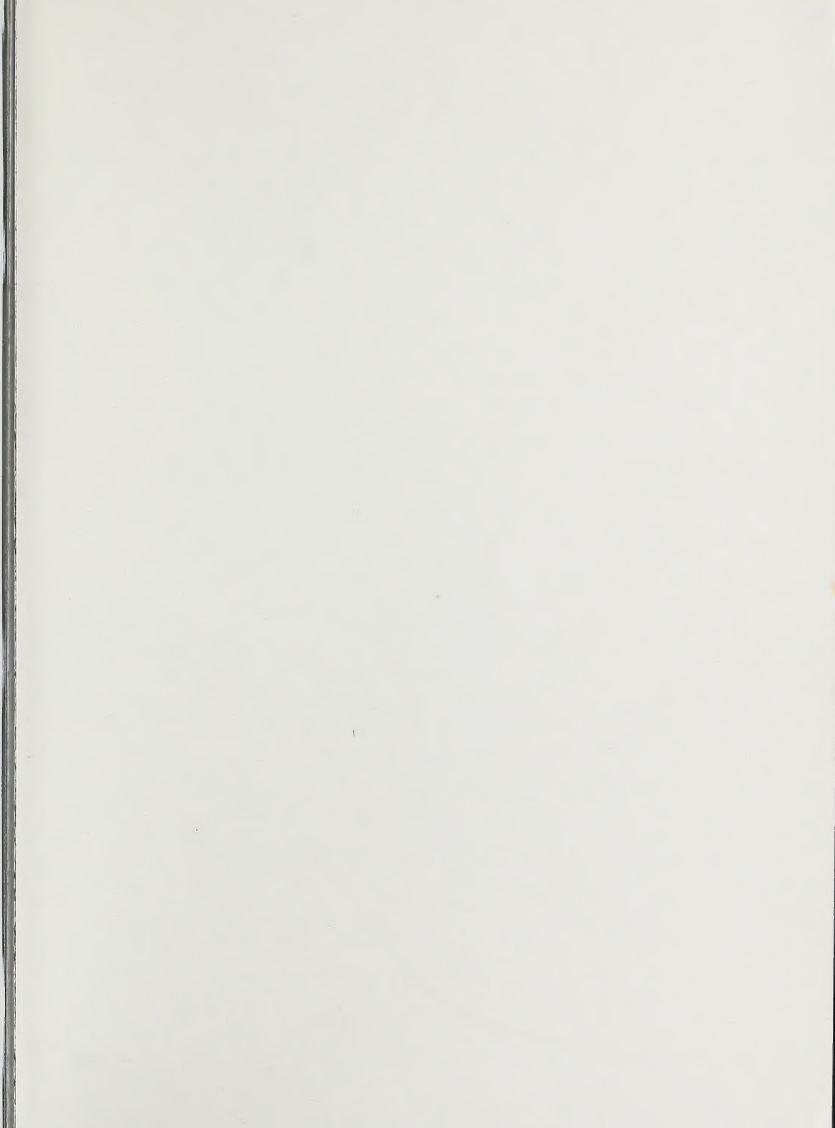
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